The Journal
Michigan
STATE MEDICAL SOCIETY

February, 1959
Volume 58
Number 2

THE DOCTOR AS A CITIZEN

two roles for M.D.'s

EFFECTIVE AGAINST MOST STRAINS OF STAPHYLOCOCCI

CHLOROMYCETIN®

COMBATS MOST CLINICALLY IMPORTANT PATHOGENS

Surveys of *in vitro* performance of various antibiotics over the past several years indicate a definite decrease in activity against the staphylococcus.[1,2] CHLOROMYCETIN, however, continues to demonstrate a high degree of potency against this stubborn pathogen.[1-4] Even the strains responsible for hospital-acquired staphylococcal infections, which are resistant to most other antibiotics, may be sensitive to CHLOROMYCETIN.[5-9] For this reason, it has been recommended for immediate use in suspected staphylococcal infections in infants, their mothers, and in surgical patients.[10]

CHLOROMYCETIN (chloramphenicol, Parke-Davis) is available in a variety of forms, including Kapseals® of 250 mg., in bottles of 16 and 100.

CHLOROMYCETIN is a potent therapeutic agent and, because certain blood dyscrasias have been associated with its administration, it should not be used indiscriminately or for minor infections. Furthermore, as with certain other drugs, adequate blood studies should be made when the patient requires prolonged or intermittent therapy.

REFERENCES: (1) Holloway, W. J., & Scott, E. G.: *Delaware M. J.* **30**:175, 1958. (2) Roy, T. E., *et al.*: *Canad. M.A.J.* **77**:844, 1957. (3) Markham, N. E., & Shott, H. C. W.: *New Zealand M. J.* **57**:55, 1958. (4) Royer, A., in Welch, H., & Marti-Ibañez, E.: Antibiotics Annual 1957-1958, New York, Medical Encyclopedia, Inc., 1958, p. 783. (5) Blair, J. E., & Carr, M.: *J.A.M.A.* **166**:1192, 1958. (6) Caswell, H. T., *et al.*: *Surg., Gynec. & Obst.* **106**:1, 1958. (7) Fekety, F. R., *et al.*: *Am. J. Pub. Health* **48**:298, 1958. (8) Godfrey, M. E., & Smith, I. M.: *J.A.M.A.* **166**:1197, 1958. (9) Kessler, A. D., & Scott, R. B.: *J. Dis. Child.* **96**:294, 1958. (10) Shaffer, T. E.: *J. Michigan M. Soc.* **57**:851, 1958.

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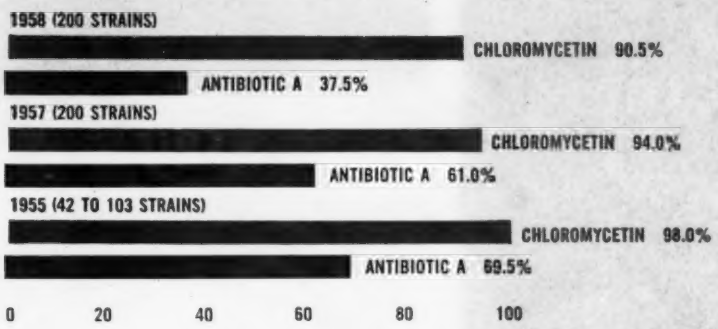
IN VITRO SENSITIVITY OF PATHOGENIC STAPHYLOCOCCI TO CHLOROMYCETIN AND TO ANOTHER WIDELY USED BROAD-SPECTRUM ANTIBIOTIC FOR 1958, 1957, and 1955*



*Adapted from Holloway and Scott.[1] In this study CHLOROMYCETIN and Antibiotic A were used in identical strengths of 5 mcg.

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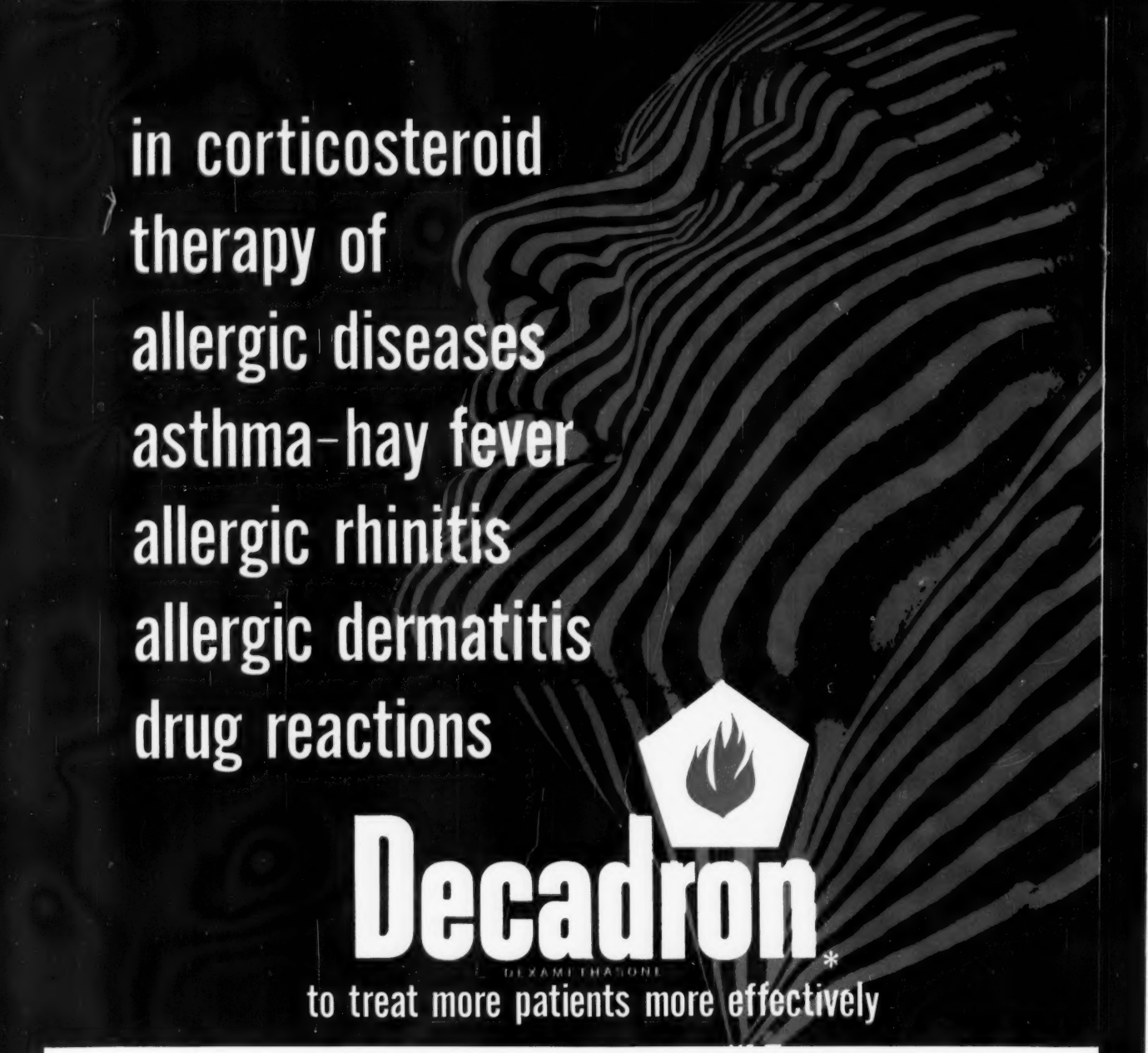

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a new order of magnitude in margin of safety

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of the Michigan State Medical Society

VOLUME 58 FEBRUARY, 1959 NUMBER 2

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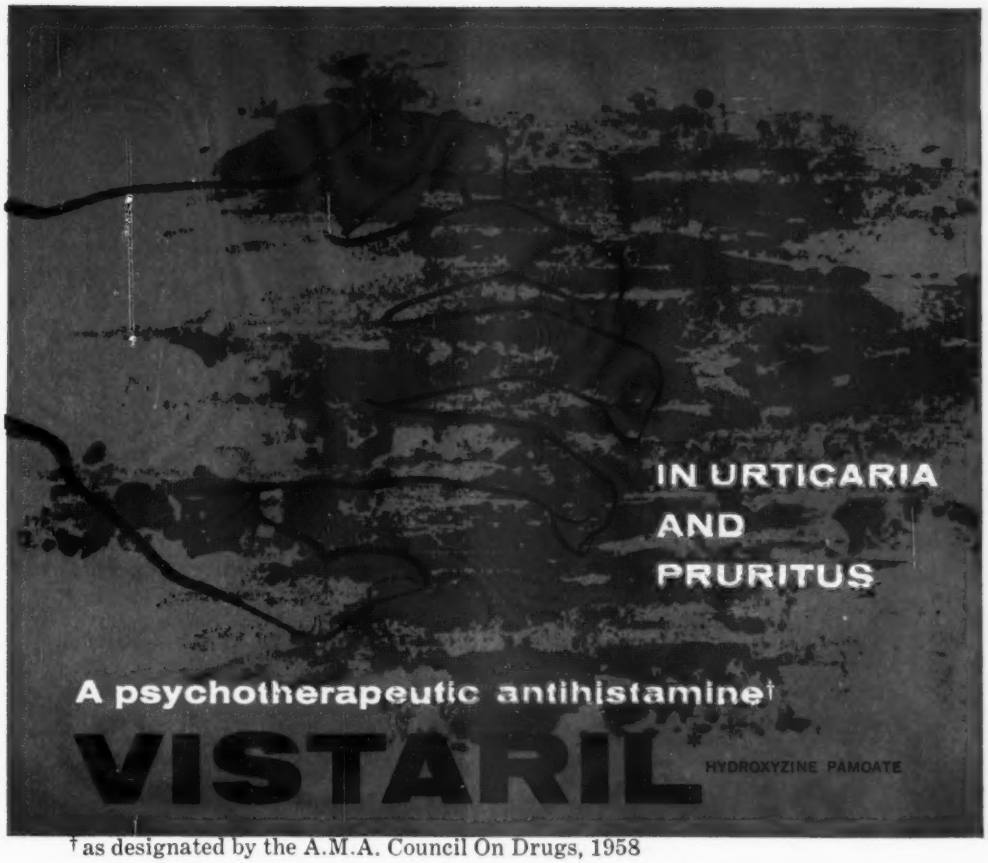

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References: 1. Feinberg, A. R., et al.: J. Allergy *29*:358 (July) 1958. 2. Eisenberg, B. C., Clinical Medicine *5*:897-904 (July) 1958. 3. Robinson, H. M., et al.: J.A.M.A. *161*:604-606 (June 16) 1958. 4. Robinson, H. H., et al.: So. Med. J. *50*:1282 (Oct.) 1957.

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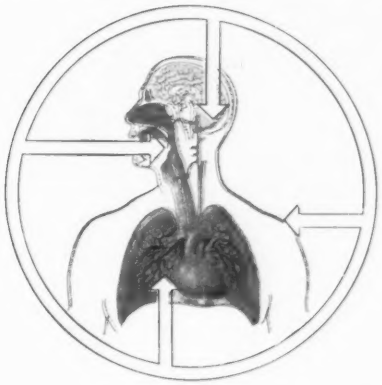

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Provides well-tolerated APAP (N-acetyl-p-aminophenol) for prompt and effective analgesic and antipyretic action to make the patient more comfortable.

Provides Dormethan (brand of dextromethorphan HBr) for non-narcotic antitussive action on the cough reflex center in the medulla—as effective as codeine but without codeine's drawbacks.

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†Lhotka, F. M.: Illinois M. J. 112:259 (Dec.) 1957. Fabricant, N. D.: E. E. N. T. Monthly 37:460 (July) 1958. Farmer, D. F.: Clin. Med. 5:1183 (Sept.) 1958.

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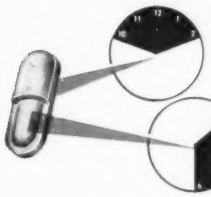

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TRIAMINIC®	50 mg.
(phenylpropanolamine HCl	25 mg.
pheniramine maleate	12.5 mg.
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Dormethan (brand of dextromethorphan HBr)	30 mg.
Terpin hydrate	180 mg.
APAP (N-acetyl-p-aminophenol)	325 mg.

Dosage: One tablet in the morning, midafternoon and in the evening, if needed.

Tussagesic* *timed-release tablets*

Contains TRIAMINIC to STOP running noses and open stuffed noses orally

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PRESIDENTS ROOM IN NEW MSMS BUILDING

Louis J. Hirschman, M.D., Traverse City, and B. R. Corbus, M.D., Grand Rapids, were elected chairman and vice chairman, respectively, of the MSMS Committee of Past Presidents at their October 2 meeting in Detroit.

The Past Presidents decided to furnish the Presidents Room in the new MSMS Headquarters Building to be erected in East Lansing.

Past-Presidents Favor M-75

"The Advisory Committee of Past Presidents has observed, with extreme interest, the recent critical campaign waged against M-75. We wish to commend The Council, Officers of the Michigan State Medical Society and the House of Delegates for their long and considered deliberations.

"From our past observations under similar conditions we believe that inequities will be corrected and M-75 will be preserved to render a fuller and better service to our patients and to the doctors of medicine who serve them. Most of all, we are grateful to those who participate and make it possible for our own plan for medical care in Michigan to be preserved.

"Because of the confidence expressed in our House of Delegates, The Council and Officers of our Society, that this communication become part of the minutes of this meeting and be referred to The Council."

—Extract from minutes of meeting of Committee of MSMS Past Presidents, October 2, 1958, Detroit.

NEW GROUP LIFE INSURANCE PLAN OFFERED

Eligible members of the Michigan State Medical Society under seventy years of age may now participate in a new Group Life Insurance plan developed exclusively for MSMS.

A requisite for participation is active membership in MSMS.

According to the State Insurance Code, members of the Wayne County Medical Society will not be eligible for the MSMS Group Insurance, because its own-sponsored plan is already available, having the same benefits.

Approval of the plan by the 1958 House of Delegates climaxed a full year of study by a committee chaired by Milton A. Darling, M.D., Detroit.

In an explanatory pamphlet sent to MSMS members in early January, Doctor Darling wrote, "Your Committee has carefully examined numerous plans of group life insurance and has reached the unanimous conclusion that the plan . . . offers a maximum amount of low-cost protection, and it embodies the features of high-quality insurance coverage. Your Committee recommends this plan to all our eligible members."

The Mutual Benefit Life Insurance Company of Newark, New Jersey, is the underwriting company for the MSMS Plan. Representative is Ben P. Stratton, Lansing.

This program will become effective when a minimum of 25 per cent of MSMS members have elected to participate. A minimum of 60 per cent must be enrolled in order to continue the plan beyond the first year.

Amount of Life Insurance Benefit

The amount of renewable group term life insurance benefit will range from a maximum of $10,000 for younger doctors to a minimum of $2,500 for those in the over sixty-five age group.

Additional Permanent Coverage

Any member of the Society who elects to participate in the plan will immediately be eligible to apply for an additional amount of permanent life insurance coverage. This will be in the form of an individual policy owned by the member. The amount is optional, but following is the schedule as to amounts available without a full medical examination:

Through age 30	Up to $15,000
Age 31 thru 35	Up to $12,500
Age 36 thru 40	Up to $ 7,500

Higher amounts for the above age groups and all amounts for members over forty can be obtained subject to regular medical examination.

Conversion Privilege

Should an individual cease to be a member of the Society, his Group Term life insurance will terminate. However, he will have thirty-one days from the date of termination in which to convert to one of many individual Mutual Benefit life policies—without taking an examination.

Disability Provision

If a member becomes totally disabled prior to his sixtieth birthday, the Group Term life insurance will continue in force without further premium payments. This coverage will continue as long as the insured remains so disabled.

Brochure Available

For more detailed information on the MSMS Plan, a Group Life insurance brochure may be obtained by writing MSMS headquarters in Lansing.

(Continued on Page 160)

Relieve moderate or severe pain

Reduce fever

Alleviate the general malaise of upper respiratory infections

'TABLOID'

'EMPIRIN' COMPOUND®

WITH

CODEINE PHOSPHATE*

maximum codeine analgesia/optimum antipyretic action

*Subject to Federal Narcotic Regulations

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, New York

Symbols OF PROVEN PAIN RELIEF

gr. 1

gr. ½

gr. ¼

gr. ⅛

Formulas for dependable relief...

...from moderate to severe pain complicated by tension, anxiety and restlessness.

'CODEMPIRAL'® NO. 3*

Codeine Phosphate	gr. ½
Phenobarbital	gr. ¼
Acetophenetidin	gr. 2½
Aspirin (Acetylsalicylic Acid)	gr. 3½

'CODEMPIRAL'® NO. 2*

Codeine Phosphate	gr. ¼
Phenobarbital	gr. ¼
Acetophenetidin	gr. 2½
Aspirin (Acetylsalicylic Acid)	gr. 3½

...from pain of muscle and joint origin, simple headache, neuralgia, and the symptoms of the common cold.

'TABLOID'

'EMPIRIN' COMPOUND®

Acetophenetidin	gr. 2½
Aspirin (Acetylsalicylic Acid)	gr. 3½
Caffeine	gr. ½

...from mild pain complicated by tension and restlessness.

'EMPIRAL'®

Phenobarbital	gr. ¼
Acetophenetidin	gr. 2½
Aspirin (Acetylsalicylic Acid)	gr. 3½

*Subject to Federal Narcotic Regulations

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, New York

VARIDASE* BUCCAL TABLETS

Streptokinase-Streptodornase Lederle

Controls Inflammation and Swelling...Relieves Pain... Promotes Healing Through Enchancement of Fibrinolysis at the Site of Trauma or Infection.

References: 1. Innerfield, I.; Shub, H., and Boyd, L. J.: New England J. Med. 258: 1069 (May 24) 1958. 2. Miller, J. M.; Godfrey, G. C.; Ginsberg, M. J., and Papastrat, C. J.: J. A. M. A. 166:478 (Feb. 1) 1958. 3. Davidson, E.; Prigot, A., and Maynard, A. de L.: Harlem Hosp. Bull. II: 1 (June) 1958 *Reg. U. S. Pat. Off.

In Sinusitis

Helps promote drainage... hastens patient's relief... reduces mucosal swelling.[1]

Force Injuries

Contusions, and abrasions... reduces discomfort and improves cosmetic result.[1-3]

Sprains, Fractures

Helps reduce swelling and pain... speeds ambulation.[1-3]

TO ACCELERATE THE RECOVERY PROCESS

Established Efficacy and Safety: For five years VARIDASE, in parenteral form, has been used with success in many thousands of cases. Its ability to control inflammation, swelling and associated pain, aid penetration of antibiotics, and hasten healing has been demonstrated in such conditions as severe trauma, infected ulcerations, and following extensive surgery.

Now, Parenteral Effectiveness . . . Simple Buccal Route: New VARIDASE Buccal Tablets give your patients the benefits of systemic VARIDASE therapy without the inconvenience of repeated injections. Absorbed through the buccal mucosa in fully effective amounts, VARIDASE Buccal Tablets may be used as practical adjunctive therapy in your practice within these broad classifications:

Inflammation and edema associated with: trauma and infection • cellulitis • abscess • hematoma • thrombophlebitis • sinusitis • uveitis • chronic bronchitis • leg ulcer • chronic bronchiectasis.

Each VARIDASE Buccal Tablet contains 10,000 Units Streptokinase and 2,500 Units Streptodornase.

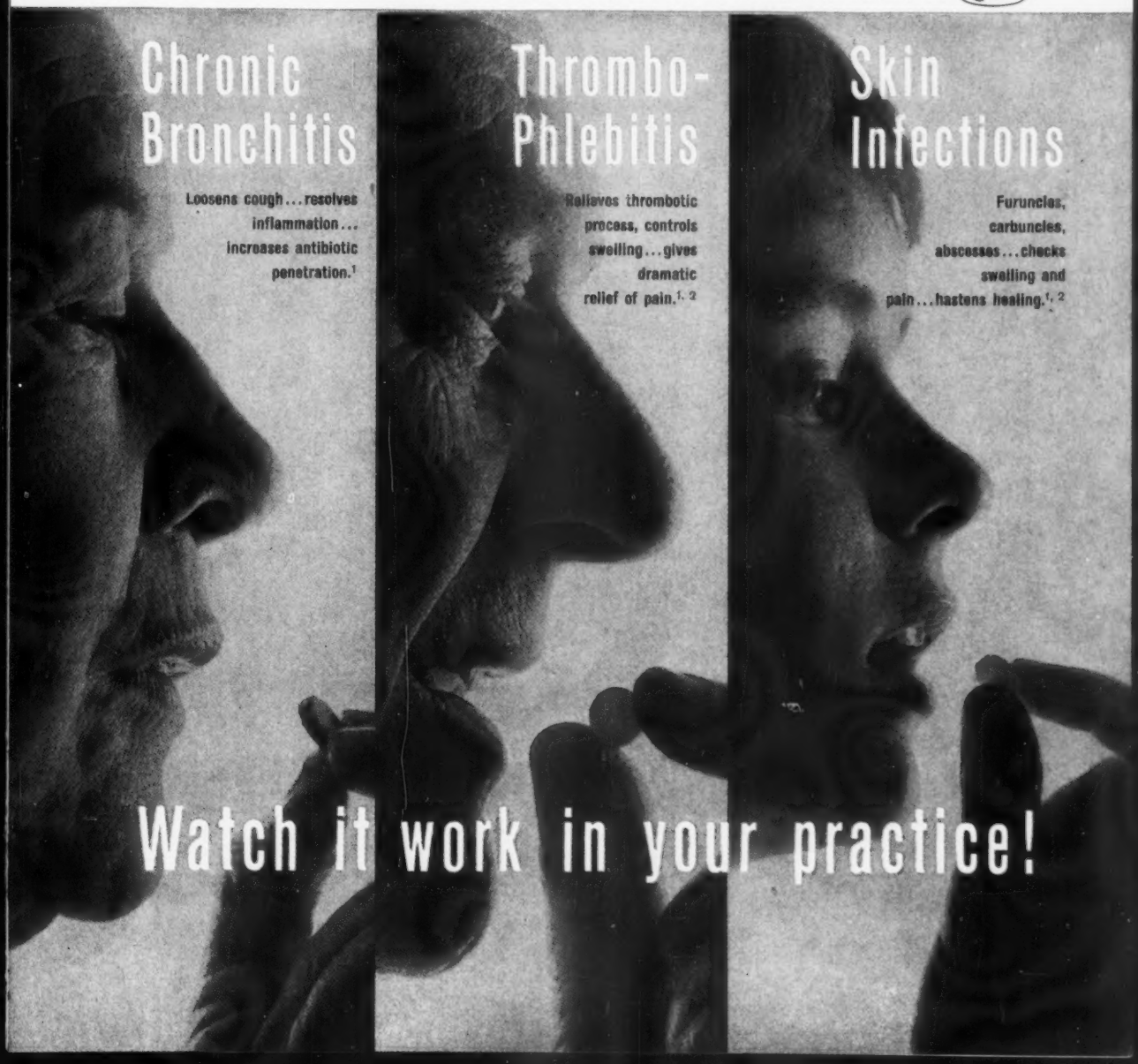
Administration: VARIDASE Buccal Tablets should be retained in the buccal pouch until dissolved. For maximum absorption patient should delay swallowing saliva.

Dosage: One tablet four times daily for a minimum of three days. When infection is present, VARIDASE Buccal Tablets should be given in conjunction with an antibiotic such as ACHROMYCIN* V Tetracycline and Citric Acid.

Available in bottles of 24.

*Reg. U. S. Pat. Off.

LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

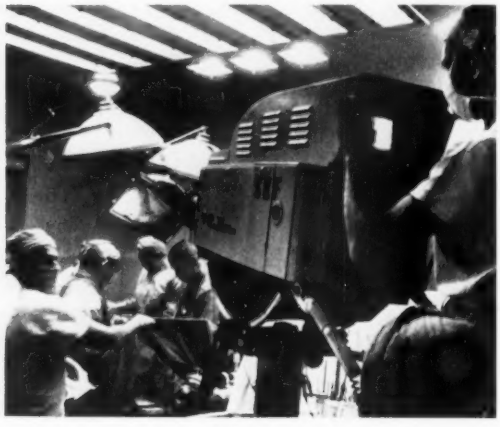


(Continued from Page 156)

TV COLORCASTS SET FOR MCI

Closed circuit colorcasts of scientific importance to doctors of medicine attending the 13th Annual Michigan Clinical Institute in Detroit's Sheraton-Cadillac Hotel have been arranged for each meeting day, beginning Tuesday, March 10.

The programs will emanate from the operating rooms of Providence Hospital through the mobile television facilities of Smith Kline and French Laboratories.



Although the prime purpose of SKF's Color TV Unit is to facilitate postgraduate education of doctors of medicine, on March 9, Monday evening, the public will be given another opportunity to learn more of the intricacies of medical-surgical progress when a cataract extraction is performed before the TV cameras. To explain the delicate procedure, a panel of doctors in an adjoining "studio" will tell the story in everyday language. The event will be transmitted to home receivers by WWJ-TV and several outstate stations.

The clinical content of the programs is determined by a committee of the Michigan State Medical Society which serves as co-ordinator with the profession, SKF and the television station. Donald H. Kaump, M.D., is committee chairman.

BIG TECHNICAL EXHIBIT AT '59 MCI

Following is a list of business friends of the medical profession who will participate as exhibitors in the Michigan Clinical Institute to be held at the Sheraton-Cadillac Hotel, Detroit, March 10-11-12-13, 1959:

Booth Number	*Company*	*City*
1	P. Lorillard Company	New York, N. Y.
2	W. B. Saunders Company	Philadelphia, Pa.
3	Hack Shoe Company	Detroit
4	Michigan Medical Service	Detroit
5	Gray Audograph Company	Detroit
6	Coca-Cola Company	Atlanta, Ga.
7	Coca-Cola Company	Atlanta, Ga.
8	Julius Schmid, Inc.	New York, N. Y.
9	Fuller Pharmaceutical Co.	Minneapolis, Minn.
10	Baker Laboratories, Inc.	Cleveland, Ohio
11	C. A. Fisher & Sons	Toledo, Ohio
12	Randolph Surgical Supply Co.	Detroit
13	Randolph Surgical Supply Co.	Detroit
14	Milex Products	Oak Park
15	Health Insurance Council	New York, N. Y.
16	Desitin Chemical Company	Providence, R. I.
17	Sandoz Pharmaceuticals	Hanover, N. J.
18	The Upjohn Company	Kalamazoo
19	Sanborn Company	Cambridge, Mass.
20	Schering Corporation	Bloomfield, N. J.
21	G. D. Searle & Company	Chicago, Ill.
22	Medical Protective Company	Fort Wayne, Ind.
23	A. H. Robins Company, Inc.	Richmond, Va.
24	Testagar & Company, Inc.	Detroit
25	Merck Sharp & Dohme	Philadelphia, Pa.
26	R. J. Reynolds Tobacco Company	Winston-Salem, N. C.
27	Atlas Pharmaceutical Laboratories	Detroit
28	E. Fougera & Company, Inc.	Hicksville, N. Y.
29	Ross Laboratories, Inc.	Columbus, Ohio
30	Smith, Kline & French Labs.	Philadelphia, Pa.
31	Medco Products Company	Tulsa, Okla.
32	A. Kuhlman & Company	Detroit
33	Abbott Laboratories	North Chicago, Ill.
34	Cunningham Drug Stores	Detroit
35	Lederle Laboratories	Pearl River, N. Y.
36	Wm. H. Rorer, Inc.	Philadelphia, Pa.
37	The Stuart Company	Pasadena, Calif.
38	American Hospital Supply	Evanston, Ill.
39	Pfizer Laboratories	Brooklyn, N. Y.
40	V. Mueller & Company	Chicago, Ill.
41	S. J. Tutag & Company	Detroit
42	Parke, Davis & Company	Detroit
43	Parke, Davis & Company	Detroit
44	Pet Milk Company	St. Louis, Mo.
45	Eaton Laboratories, Inc.	Norwich, N. Y.
46	Purdue Frederick Company	New York, N. Y.
47	Miller Surgical Company	Chicago, Ill.
48	Meyer and Company	St. Clair Shores
49	American Cyanamid Company	Danbury, Conn.
50	American Ferment Co., Inc.	New York, N. Y.
51	The Rupp & Bowman Company	Highland Park
52	Wyeth Laboratories	Philadelphia, Pa.
53	Institute of Public Information	New York, N. Y.
54	Ayerst Laboratories	Chicago, Ill.
55	Ferndale Surgical, Inc.	Ferndale
56	Doho Chemical Corporation	New York, N. Y.
57	E. R. Squibb & Sons	New York, N. Y.
58	MSMS Life, Health & Accident Insurance Program	Lansing
59	Marion Laboratories, Inc.	Kansas City, Mo.
60	Standard Process Laboratories	Detroit
61	C. V. Mosby Company	St. Louis, Mo.
62	A. S. Aloe Company	St. Louis, Mo.
63	Eli Lilly and Company	Indianapolis, Ind.
64	Eli Lilly and Company	Indianapolis, Ind.
65	Detroit X-Ray Sales Company	Detroit
66	Detroit X-Ray Sales Company	Detroit
67	G. A. Ingram Company	Detroit
68	G. A. Ingram Company	Detroit
69	Maico Hearing Service	Detroit
70	J. B. Lippincott Company	Philadelphia, Pa.
71	Mead Johnson & Company	Evansville, Ind.
72	Mead Johnson & Company	Evansville, Ind.
73	U. S. Vitamin Corporation	New York, N. Y.
74	Geigy Chemical Corporation	Yonkers, N. Y.

(Continued on Page 166)

ANNOUNCING

the first "wide range" antihypertensive

MILD MODERATE SEVERE

DIUPRES

DIURIL® WITH RESERPINE

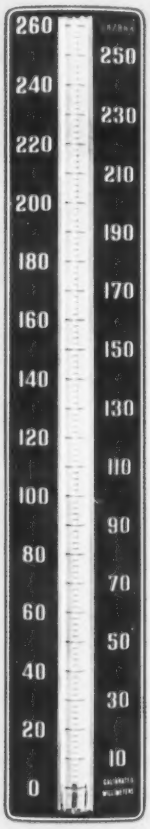
more hypertensives can be better controlled
with **DIUPRES** than with any other agent
. . . with greater simplicity and convenience

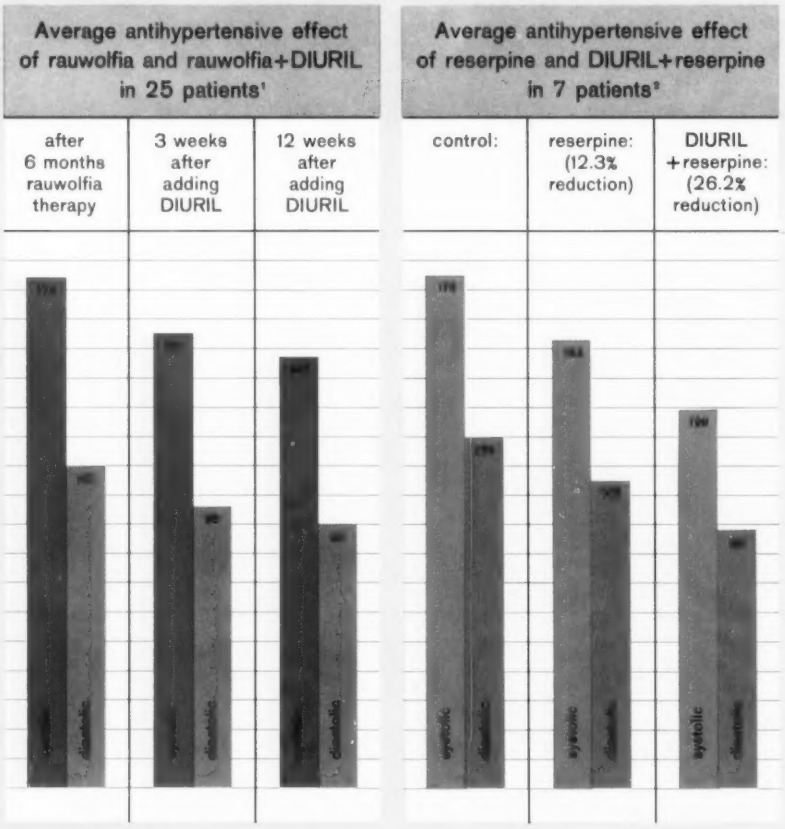
a logical alliance of two antihypertensives
you know and trust provides

increased effectiveness, decreased side effects

potentiated effect

DIUPRES produces an effect greater than either DIURIL or reserpine alone. It is effective in many patients who respond inadequately or not at all to either DIURIL or reserpine.





DIUPRES

DIURIL® WITH RESERPINE

effective therapy for most patients

DIUPRES by itself usually provides effective therapy for a majority of patients with mild or moderate hypertension, and even for many patients with severe hypertension. Many patients now treated with other agents which frequently cause distressing side effects can be adequately managed with well tolerated DIUPRES.

provides basic therapy

Should other drugs need to be added to DIUPRES, they can be given in much lower than usual dosage so that their side effects are often strikingly reduced.

rapid onset of effect

The antihypertensive action of DIUPRES is rapidly evident. (Considerable time may elapse before the antihypertensive effect of reserpine alone is observed.)

fewer and less severe side effects

DIUPRES may be expected to cause fewer and less severe side effects than are encountered with other antihypertensive therapy. (Since DIURIL and reserpine potentiate each other, the required dosage of each is usually less when given together as DIUPRES than when given alone. Such reduction in dosage makes side effects less likely to occur.)

often obviates weight gain

DIUPRES minimizes the problem of weight gain seen with reserpine (reserpine alone has been reported to produce weight gain in 50 per cent of patients).[1,4]

virtually eliminates fluid retention

DIUPRES is not likely to cause either clinical or subclinical retention of sodium and water. (Hypotensive drugs, particularly rauwolfia[5] and hydralazine,[6] may cause fluid retention. Even when such retention is subclinical, their antihypertensive effectiveness is diminished.[6])

diet more palatable

With DIUPRES, there is less need for rigid restriction of dietary salt, which patients find so burdensome.

> *"It may well be that the drug* [DIURIL] *produces the benefits of a markedly restricted low sodium diet but without its hardships."*[3]

subjective and objective improvement

DIUPRES allays anxiety and tension, thus reducing the emotional component of hypertension. Organic changes of hypertension may be arrested and reversed. Headache, dizziness, palpitations and tachycardia are usually promptly relieved by DIUPRES. When the *anginal syndrome* accompanies hypertension, the administration of DIUPRES may also cause diminution or even disappearance of this syndrome concurrent with control of the hypertension.

convenient, controlled dosage

Instead of two separate prescriptions, you write one prescription . . . the patient takes one tablet, rather than two different tablets . . . and the dosage schedule is easier for the patient to remember and follow.

> *"patients have fewer lapses and make fewer mistakes in dosage, the simpler the regimen can be made. Therefore I do not hesitate to use more than one medicament combined in one tablet, provided this gives approximately the correct dosage of each."*[6]

economical

DIUPRES will cost the patient less than if he were given two separate prescriptions for its components.

Indications:
DIUPRES is indicated in hypertension of all degrees of severity. It can be used in the following ways:

- as total therapy
- as primary therapy, adding other drugs if necessary
- as replacement or adjunctive therapy in patients now treated with other agents

Precautions:
The precautions normally observed with DIURIL or reserpine apply to DIUPRES. Additional information on DIUPRES is available to physicians on request.

Recommended dosage range:
DIUPRES-500—one tablet one to three times a day.
DIUPRES-250—one tablet one to four times a day.
If necessary, other agents may be added.
If the patient is receiving ganglion blocking agents or hydralazine, their dosage should be cut by 50 per cent when DIUPRES is added.

Diupres-500

DIUPRES-500

500 mg. DIURIL (chlorothiazide), 0.125 mg. reserpine.
Bottles of 100, 1000.

Diupres-250

DIUPRES-250

250 mg. DIURIL (chlorothiazide), 0.125 mg. reserpine.
Bottles of 100, 1000.

the first "wide range" antihypertensive

DIUPRES

DIURIL® WITH RESERPINE

1. Rochelle, J. B., III, Bullock, A. C., and Ford, R. V.: Potentiation of antihypertensive therapy by use of chlorothiazide, *J.A.M.A.* 168:410, Sept. 27, 1958. 2. Freis, E. D., Wanko, A., Wilson, I. M., and Parrish, A. E.: Treatment of essential hypertension with chlorothiazide (Diuril), *J.A.M.A.* 166:137, Jan. 11, 1958. 3. Freis, E. D.: Treatment of hypertension. (Presented at the Annual Meeting of Southern Medical Association, Nov. 13, 1957.) 4. Moyer, J. H., Dennis, E., and Ford, R.: Drug therapy (Rauwolfia) of hypertension, *A.M.A. Arch. Int. Med.* 96:530, Oct. 1955. 5. Perera, G. A.: Edema and congestive failure related to administration of rauwolfia serpentina, *J.A.M.A.* 159:439, Oct. 1, 1955. 6. Wilkins, R. W.: Precautions in use of antihypertensive drugs, including chlorothiazide, *J.A.M.A.* 167:801, June 14, 1958.

MSD MERCK SHARP & DOHME, DIVISION OF MERCK & CO., INC., PHILADELPHIA 1, PA.

IN FILMTAB® / IN ORAL SOLUTION
AND IN COMBINATION WITH SULFAS

illin®-VK

(POTASSIUM PENICILLIN V)

INDICATIONS

Against all penicillin-sensitive organisms. When combined with Sulfas, COMPOCILLIN-VK is especially effective in treating mixed infections such as may occur in the respiratory or urinary tract.

DOSAGE

Range is from 125 mg. (200,000 units) three times daily to 250 mg. (400,000 units) every four hours. Children's dosage is determined by body weight. When combined with sulfa triad, range is one Filmtab three times daily to two Filmtabs every four hours.

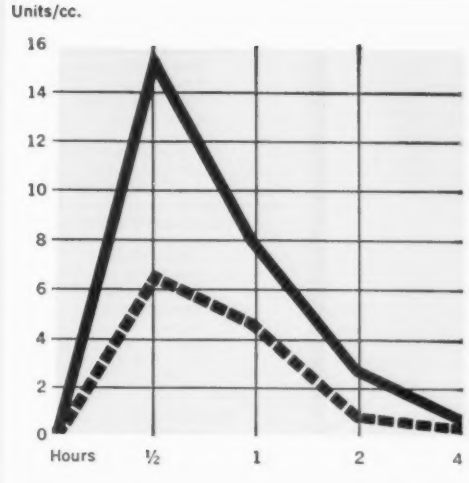
SUPPLIED

COMPOCILLIN-VK Filmtabs: 125 mg. (200,000 units), bottles of 50 and 100; 250 mg. (400,000 units), bottles of 25 and 100.

COMPOCILLIN-VK Granules for Oral Solution: In 40-cc. and 80-cc. bottles. When reconstituted, each tasty 5-cc. teaspoonful of cherry-flavored solution represents 125 mg. (200,000 units) of potassium penicillin V.

COMPOCILLIN-VK with Sulfas: Each Filmtab contains 125 mg. (200,000 units) of potassium penicillin V and 500 mg. of sulfonamides. At all pharmacies.

Abbott



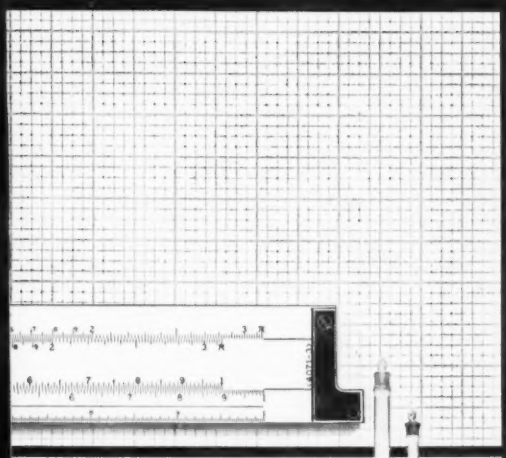
The highest levels of Filmtab Compocillin-VK.

The median levels of Filmtab Compocillin-VK.

Note the high upper levels and averages at ½ hour, and at 1 hour.

Doses of 400,000 units were administered before mealtime to 40 subjects involved in this study.

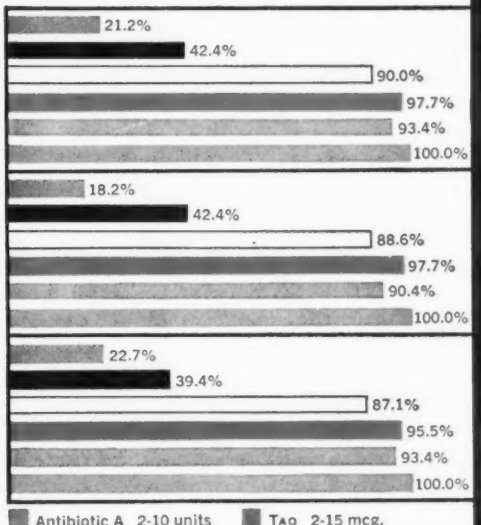
*FILMTAB—FILM-SEALED TABLETS, ABBOTT, PAT. APPLIED FOR.



in the laboratory:

over 90% effective against resistant staph

COMPARATIVE TESTS BY THREE METHODS (DISC, TUBE DILUTION, CYLINDER PLATE) ON 130 STAPHYLOCOCCI[9]



Percentage of organisms inhibited by the range of concentrations listed for each antibiotic.

Other Tao advantages:

Rapidly absorbed—stable in gastric acid,[7] TAO needs no retarding protective coating

Low in toxicity—freedom from side effects in 96% of patients treated; cessation of therapy is rarely required

Highly palatable—"practically tasteless"[7] active ingredient in a pleasant cherry-flavored medium.

Dosage and Administration: Dosage varies according to the severity of the infection. **For adults,** the average dose is 250 mg. q.i.d.; to 500 mg. q.i.d. in more severe infections. **For children** 8 months to 8 years, a daily dose of approximately 30 mg./Kg. body weight in divided doses has been found effective. Since TAO is therapeutically stable in gastric acid, it may be administered without regard to meals.

Supplied: TAO Capsules—250 mg. and 125 mg., bottles of 60. TAO for Oral Suspension—1.5 Gm., 125 mg. per teaspoonful (5 cc.) when reconstituted; unusually palatable cherry flavor; 2 oz. bottle.

References: 1. Koch, R., and Asay, L. D.: J. Pediat., in press. 2. Leming, B. H., Jr., et al.: Paper presented at the Symposium on Antibiotics, Washington, D. C., Oct. 15-17, 1958. 3. Meliman, et al.: Paper presented at the Symposium on Antibiotics, Washington, D. C., Oct. 15-17, 1958. 4. Olansky, S., and McCormick, G. E., Jr.: Paper presented at the Symposium on Antibiotics, Washington, D. C., Oct. 15-17, 1958. 5. Shubin, H., et al.: Antibiotics Annual 1957-1958, New York, N. Y., Medical Encyclopedia, Inc., 1958, p. 679. 6. Isenberg, H., and Kareiitz, S.: Paper presented at the Symposium on Antibiotics, Washington, D. C., Oct. 15-17, 1958. 7. Wennersten, J. R.: Antibiotic Med. & Clin. Therapy 5:527 (Aug.) 1958. 8. Kaplan, M. A., and Goldin, M.: Paper presented at the Symposium on Antibiotics, Washington, D. C., Oct. 15-17, 1958. 9. Truant, J. P.: Paper presented at the Symposium on Antibiotics, Washington, D. C., Oct. 15-17, 1958.

TAO dosage forms— for specific clinical situations

TAO Pediatric Drops

For children—flavorful, easy to administer.

Supplied: When reconstituted, 100 mg. per cc. Special calibrated droppers—5 drops (approx. 25 mg.) and 10 drops (approx. 50 mg.). 10 cc. bottle.

TAO-AC (TAO analgesic, antihistaminic compound)

To eradicate pain and physical discomfort in respiratory disorders.

Supplied: In bottles of 36 capsules.

TAOMID* (TAO with triple sulfas)

For dual control of Gram-positive and Gram-negative infections.

Supplied: Tablets, bottles of 60. Oral Suspension, bottles of 60 cc.

Intramuscular or Intravenous

For direct action—in clinical emergencies.

Supplied: In 10 cc. vials.

*TRADEMARK

Rx Roerig

New York 17, N.Y.
Division, Chas. Pfizer & Co., Inc.
Science for the World's Well-Being

(Continued from Page 160)

HIGHLIGHTS OF THE EXECUTIVE COMMITTEE OF THE COUNCIL
Meeting of December 10, 1958

Seventy-two items were presented to the Executive Committee of The Council at its December meeting. Chief in importance were

- **Report** on December 1958 AMA House of Delegates actions was presented by Wm. A. Hyland, M.D., Grand Rapids, Chairman of the Michigan Delegation. The Executive Committee of The Council gave particular attention to the report of the AMA Commission on Medical Care Plans which read in part:

  "We respectfully suggest to constituent associations that their attitudes will be clarified if they arrive at some decision in regard to the following basic points: (a) Free choice of physician—acknowledging the importance of free choice of physician, is this concept to be considered a fundamental principle, incontrovertible, unalterable, and essential to good medical care without qualification? (b) closed panel systems—what is or what will be your attitude regarding physician participation in those systems of medical care which restrict free choice of physician?" The Executive Committee of The Council referred these matters for study to a committee under the chairmanship of J. S. DeTar, M.D., Milan.

  Health Care of the Aged also was thoroughly discussed by the Executive Committee of The Council which adopted the following resolution (identical with the AMA resolution adopted in Minneapolis):

  "For persons over sixty-five years of age with reduced incomes and very modest resources, it is necessary immediately to develop further the voluntary health insurance or prepayment plans in a way that would be acceptable both to the recipients and the medical profession. The medical profession must continue to assert its leadership and responsibility for assuring adequate medical care for this group of our citizens.

  "Therefore, The Council on Medical Service recommends to the House of Delegates the adoption of the following proposal: That the American Medical Association, the constituent and component medical societies, as well as physicians everywhere, expedite the development of an effective voluntary health insurance or prepayment program for the group over sixty-five with modest resources or low family income; that physicians agree to accept a level of compensation for medical services rendered to this group, which will permit the development of such an offering at a reduced premium rate."

  The Executive Committee urged the Medical Care Insurance Committee immediately to study and develop such a contract in accordance with the AMA policy.

- **Medicare.** It was reported that the amount of recent cut-back in services, since October 1, represented at the present time about 50 per cent. It was reported that the AMA House of Delegates took notice of the restrictive changes in the Medicare program; expressed regret at the substitution of federal facilities for private care in the areas mentioned, and urged the Association to encourage the re-establishment of services under a *free choice principle* to accomplish the original intent of the Act.
- **Veterans Administration Home Town Medical Care Program.** A new schedule on Veterans Administration is being studied and the Executive Committee of The Council requested Michigan Medical Service, as its fiscal agent, to submit to the Veterans Administration a schedule of fees based on the Medicare schedule as the basis for negotiating a new fee schedule to be effective July 1, 1959.
- **Committees.** Four committees were appointed (a) Liaison Committee with Michigan Chapter, Health Insurance Council: G. W. Slagle, M.D., Battle Creek, Chairman; D. W. Thorup, M.D., Benton Harbor; M. L. Lichter, M.D., Detroit; M. A. Darling, M.D., Detroit; B. L. Masters, M.D., Fremont. (b) Committee to Study Feasibility of Greater Participation in Blue Shield: B. L. Masters, M.D. Fremont, Chairman; C. A. Payne, M.D., Grand Rapids; A. E. Schiller, M.D., Detroit; George C. Wilson, M.D., Clinton; and F. J. Busch, M.D., Saginaw. (c) MSMS Representatives to Planning Committee on Psychiatric Nursing: L. W. Hull, M.D., Detroit; A. Hazen Price, M.D., Detroit; I. A. LaCore, M.D., Pontiac; and Wm. J. Burns, Lansing. (d) MSMS Representatives to Michigan Cancer Co-ordinating Committee: J. W. Hubly, M.D., Battle Creek; W. A. Hyland, M.D., Grand Rapids; H. M. Pollard, M.D., Ann Arbor; G. S. Wilson, M.D., Detroit. J. J. Lightbody, M.D., Detroit, was appointed as MSMS representative to National Foundation Health Scholarship Committee.
- **Permanent Advisory Committee on Fees—personnel changes.** The Speaker announced the personnel of the House of Delegates Permanent Advisory Committee on Fees: G. C. Penberthy, M.D., Detroit, Chairman; L. J. Bailey, M.D., Detroit; H. F. Falls, M.D., Ann Arbor; H. W. Harris, M.D., Lansing; L. R. Leader, M.D., Detroit; Wm. M. LeFevre, M.D., Muskegon; M. L. Lichter, M.D., Melvindale; J. W. Rice, M.D., Jackson; R. K. Whiteley, M.D., Detroit.
- **Quarterly Report to Members of MSMS House of Delegates.** The Executive Committee of The Council instructed that the first quarterly report from The Council be sent to all MSMS Delegates on or before January 1, 1959, as instructed by the 1958 House of Delegates.
- **General Chairman of Arrangements for 1959 MSMS Annual Session:** J. W. Logie, M.D., Grand Rapids, was appointed.

(Continued on Page 168)

for depression

▲Deprol▲†

Clinically confirmed in over 2,500 documented case histories[1,2]

CONFIRMED EFFICACY

Deprol ► acts promptly to control depression *without* stimulation
► restores natural sleep
► reduces depressive rumination and crying

DOCUMENTED SAFETY

Deprol is unlike amine-oxidase inhibitors

► does not adversely affect blood pressure or sexual function
► causes no excessive elation
► produces no liver toxicity
► does not interfere with other drug therapies

Deprol is unlike central nervous stimulants

► does not cause insomnia
► produces no amphetamine-like jitteriness
► does not depress appetite
► has no depression-producing aftereffects
► can be used freely in hypertension and in unstable personalities

Dosage: Usual starting dose is 1 tablet q.i.d. When necessary, this dose may be gradually increased up to 3 tablets q.i.d.

Composition: Each tablet contains 400 mg. meprobamate and 1 mg. 2-diethylaminoethyl benzilate hydrochloride (benactyzine HCl).

Supplied: Bottles of 50 scored tablets.

1. Alexander, L.: Chemotherapy of depression—Use of meprobamate combined with benactyzine (2-diethylaminoethyl benzilate) hydrochloride. J.A.M.A. 166:1019, March 1, 1958. 2. Current personal communications; in the files of Wallace Laboratories.

†TRADE-MARK

65-7469

Literature and samples on request WALLACE LABORATORIES, *New Brunswick, N. J.*

HIGHLIGHTS OF THE COUNCIL

(Continued from Page 166)

- **Financial Reports** were presented and approved after study; bills payable were presented and payment was authorized.
- **The Executive Committee of The Council** approved the Macomb County Medical Society's resolution re need for adequate funds to render necessary medical service to Michigan Crippled Children Commission patients; the matter was referred to the MSMS Legislative Committee for appropriate follow-through.
- **Approval** was given that invitations be sent to guest essayists at the 1959 Annual Session to present scientific exhibits complementing their assembly presentations.
- **Telephone requirements** and interior decoration of the new MSMS building were referred to the Big Look Committee, W. S. Jones, M.D., Menominee, Chairman.
- **Legal Counsel Lester P. Dodd** presented opinions on (a) prescription for liquor (b) routine orders for ante-partum care of patients in labor (c) hospitals being exempt from tort liability (d) liability of medical organizations for income taxes (e) county societys' constitutions and bylaws. Legal Counsel stated that he had spoken before several county medical societies on the subject of "professional liability" and was available for similar invitations from other component societies.
- **The Public Relations Counsel** reported on (a) the probability that certain health agencies would be merged at the decision of the Governor —which would automatically take effect if not vetoed within sixty days by the State Legislature. (b) Public TV show during Michigan Clinical Institute (Monday evening, March 9) over the facilities of WWJ-TV and through the co-operation of Smith Kline & French Laboratories of Philadelphia and Providence Hospital in Detroit. (c) Transcription of closed circuit telecasts (for M.D.'s only) during the Michigan Clinical Institute was authorized by the Executive Committee. (d) Progress report on Michigan Association of the Professions which now is incorporated—with W. M. LeFevre, M.D., of Muskegon as first president.
- **Committee Reports.** The following were given consideration: Advisory Committee of Past Presidents, meeting of October 2—which included offer of Past Presidents to furnish the Presidents Office in the new MSMS building. (b) Michigan Cancer Co-ordinating Committee, October 10. (c) Permanent Conference Committee, October 15—including authorization for MSMS to co-sponsor a joint conference on staphylococcus infections. (d) Study on Prevention of Highway Accidents, October 16. (e) Liaison Committee with the Michigan Hospital Association, October 22. (f) Committee organizational meeting, October 29. (g) Geriatrics Committee, October 29. (h) Iodized Salt, November 4. (i) Committee to Select MCIC Secretary, November 10. (j) Maternal Health Committee, November 12 (with Chairman Francis Jones, Jr., M.D., of Lansing present). (k) Committee to Study Utilization of Vacant TB Facilities for Chronic Diseases, November 12. (l) Chairmen of Councilor District Medical Care Insurance Committees, December 6. (m) Medical Care Insurance Committee, December 6.

DOCTORS' OFFICES IN HOSPITAL-FINANCED BUILDINGS

Non-profit hospitals are jeopardizing their tax-exempt status and the tax deductibility of donations by engaging in commercial enterprises for profit, according to a study recently made by the Foundation for Management Research of Chicago entitled "Doctors' Offices in Hospital-Financed Buildings." This study recommended that hospitals use all available capital funds to expand bed space instead of building hospital-financed medical office buildings which was indicated by the study as "a dangerous tendency in hospital administration."

Listing a number of cities in which this practice has gained a foothold in some hospital, the study states "rents are usually nominal, and these physicians are thus enabled to utilize publicly endowed facilities for private gain. This violates local property exemptions and the Internal Revenue Code, this tendency to engage in profit-making enterprises is slowly undermining the tax-exempt status of non-profit hospitals."

Other objections raised by the Foundation report to hospital-financed offices for physicians' private practice were:

1. It caused dissatisfaction among physicians "frozen out" and faced with "unfair competition" from physicians with subsidized private offices in non-profit hospitals.

2. Hospitals do not benefit significantly from this practice.

3. Permitting private gain through use of publicly-endowed facilities is misuse of public contributions.

4. Using up hospital space or grounds for office buildings may cripple future expansion, needed for bed space.

ASIAN FLU VIRUS

Asian flu shots are vital for pregnant women, persons with heart or lung disease, and the very young or very old, says a specialist at The University of Michigan Medical Center.

Albert V. Hennessy, M.D., Department of Epi-

(Continued on Page 176)

More effective clinically

in **LOW BACK PAIN**

TORTICOLLIS

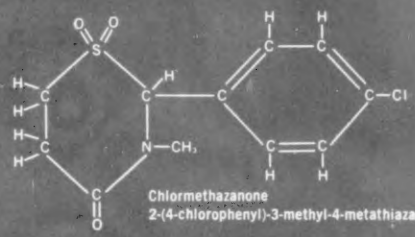
BURSITIS and

ANXIETY STATES

Trancopal®

the first true tranquilaxant

MUSCLE RELAXANT and TRANQUILIZER



Chlormethazanone
2-(4-chlorophenyl)-3-methyl-4-metathiazanone-1-dioxide

Unrelated chemically to any other therapeutic agent in current use. Better tolerated and safer than older drugs.

for clinical results in 4092 patients *see inside*

Trancopal

the first true
*TRANQUILAXANT**

MUSCLE RELAXANT and TRANQUILIZER

clinical results in 4092 patients[5]

*tran-qui-lax-ant (trăn'kwĭ-lăk'sənt) [< L. tranquillus, quiet; L. laxare, to loosen, as the muscles]

Clinical Comments

"We have just started using it [Trancopal] for relaxing spastic musculature and are ***very much encouraged.***"[1]

Baker, University of Minnesota Medical School

"Chlormethazanone [Trancopal] not only relieved *painful muscle spasm,* but allowed the patients to resume their normal activities with no interference in performance of either manual or intellectual tasks."[2]

Lichtman, New York Polyclinic Medical School and Hospital

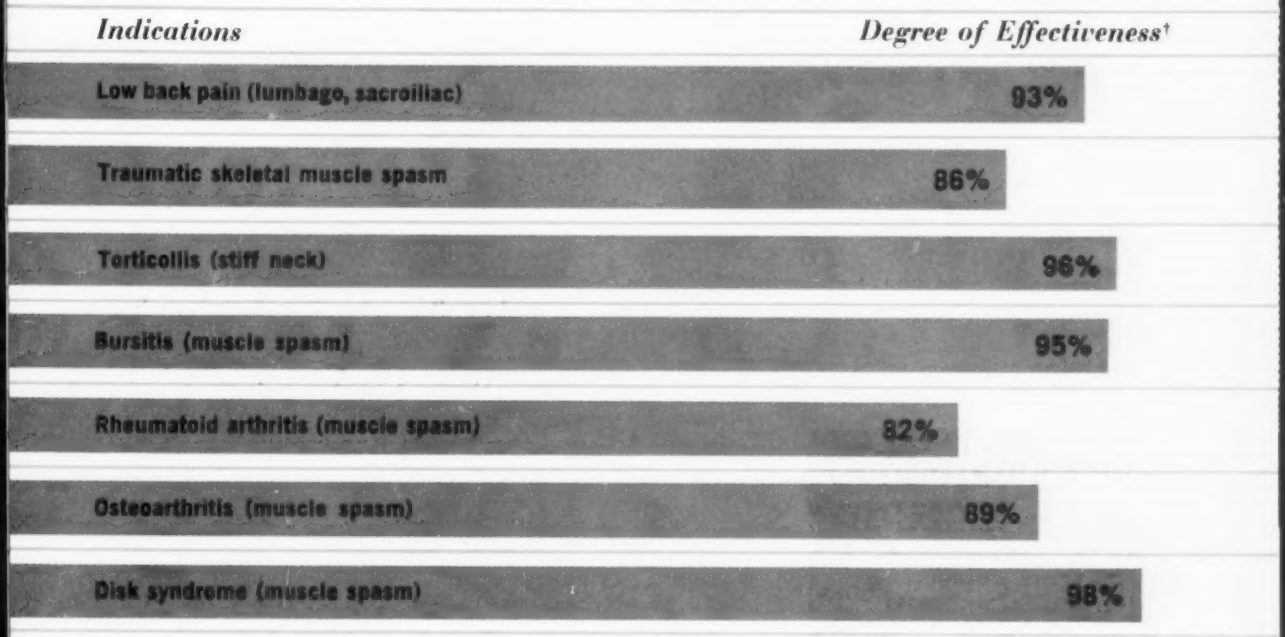
"The effect of this preparation in these cases [skeletal muscle spasm] was ***excellent and prompt . . .***"[3]

Mullin and Epifano, Long Island College Hospital

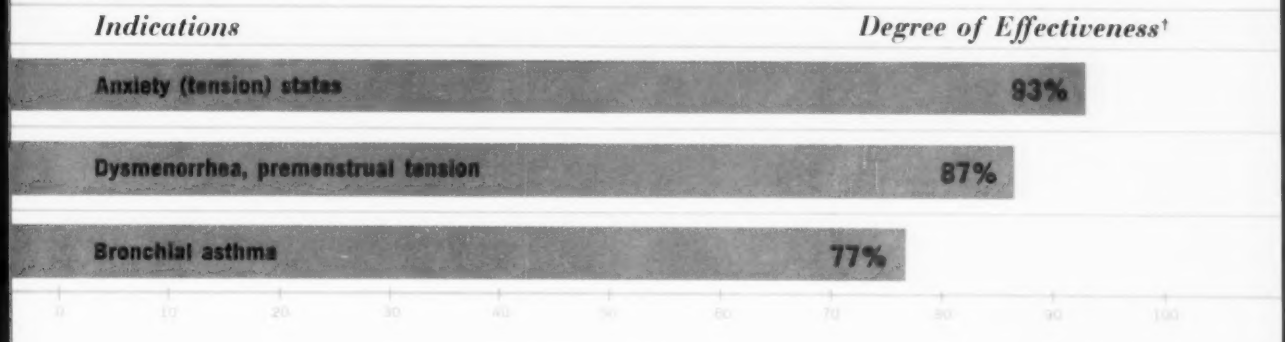
"In 120 patients with *anxiety or tension states,* 114 received satisfactory control of their condition. *Severe dysmenorrhea* and *premenstrual tension* in 65 patients refractory to the usual medications were relieved satisfactorily in 56."[4]

Lichtman

91% Effective in Musculoskeletal Disorders



89% Effective in Psychogenic Disorders



The results of clinical studies of over 4092 patients by 105 physicians demonstrate that Trancopal often is effective when other drugs have failed. From these studies it is clear that Trancopal probably can provide more help for a greater number of tense, spastic, and/or emotionally upset patients than any other pharmaceutical agent in current use.

Winthrop

†*Excellent, good and fair*

Dosage:
Usual adult dose, 1 Caplet (100 mg.) three or four times daily. Children (from 5 to 12 years), ½ Caplet (50 mg.) three or four times daily.

Supplied:
Trancopal Caplets® (peach colored, scored) 100 mg., bottles of 100 and 1000.

Trancopal

the first true tranquilaxant

MUSCLE RELAXANT and TRANQUILIZER

ADVANTAGES OF TRANCOPAL

- Lower incidence of side effects than with zoxazolamine, methocarbamol or meprobamate.
- No known contraindications. Blood pressure, pulse rate, respiration and digestive processes unaffected by therapeutic dosage. No effects on hematopoietic system or liver and kidney function.
- Low toxicity. "As safe as aspirin."
- No gastric irritation. Can be taken before meals.
- No clouding of consciousness, no euphoria or depression.
- No perceptible soporific effect, even in high dosage.

INDICATIONS

Musculoskeletal

Low back pain (lumbago)
Neck pain (torticollis, etc.)
Bursitis
Rheumatoid arthritis
Osteoarthritis
Disk syndrome
Fibrositis
Joint disorders (ankle sprain, tennis elbow, etc.)
Myositis
Postoperative myalgias

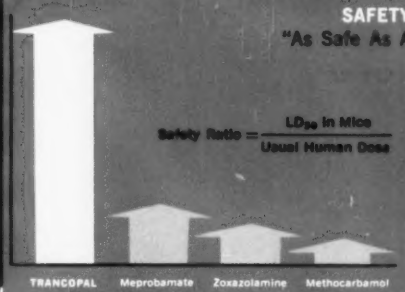
Psychogenic

Anxiety and tension states
Dysmenorrhea
Premenstrual tension
Asthma
Angina pectoris

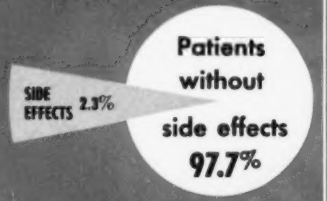
Neurologic

Muscle spasm (in paralysis agitans, multiple sclerosis, hemiplegia, cerebral palsy)

SAFETY
"As Safe As Aspirin"



Comparative pharmacologic tests showed that Trancopal is up to thirteen times as safe, or up to thirteen times less toxic. The measure of safety was the LD_{50} in mice/usual human dose.



INCIDENCE OF SIDE EFFECTS WITH TRANCOPAL IN 4262 PATIENTS.

SUPPLIED

Trancopal Caplets (peach colored, scored) 100 mg., bottles of 100 and 1000.

REFERENCES

1. Baker, A. B.: Drugs to relieve increased tonus, spasticity, and rigidity of muscles, Modern Med. 26:140, April 15, 1958. • 2. Lichtman, A. L.: New developments in muscle relaxant therapy, Kentucky Acad. Gen. Pract. J. 4:28, Oct., 1958. • 3. Mullin, W. G., and Epifano, Leonard: To be published. • 4. Lichtman, A. L.: To be published. • 5. Cooperative Study, Department of Medical Research, Winthrop Laboratories.

Winthrop Laboratories • New York 18, N. Y.

maintenance therapy is still fundamental treatment

Sound, conservative therapy with salicylates has been consistently reaffirmed as basic, long-term maintenance therapy in the arthritides.[1,2,3]

Buffered Pabirin provides superior maintenance therapy. It epitomizes fundamental long-term basic therapy since it can be given month after month without serious complications and with minimal problems to patient and doctor alike.

Buffered Pabirin is formulated to provide high and sustained salicylate blood levels. Each tablet consists of an outer layer containing a buffer (aluminum hydroxide), para-aminobenzoic acid, and ascorbic acid; a core of acetylsalicylic acid.

In the stomach, the outer layer quickly releases the buffer, which protects against nausea, dyspepsia and other gastrointestinal symptoms so frequently encountered with salicylates alone. The core of Buffered Pabirin then disintegrates rapidly, permitting rapid absorption of the acetylsalicylic acid for faster pain relief.

References: 1. Hart, D.; Bagnall, A. W.; Bunim, J. J., and Polley, F. H.: Ninth International Congress on Rheumatic Diseases, Toronto, Ont. (June 25) 1957. 2. Report of Joint Committee, Medical Research Council & Nuffield Foundation, Treatment of Rheumatoid Arthritis, British Medical Journal (April 13) 1957. 3. Friend, D. G.: New England J. Med. 257:278 (Aug.) 1957.

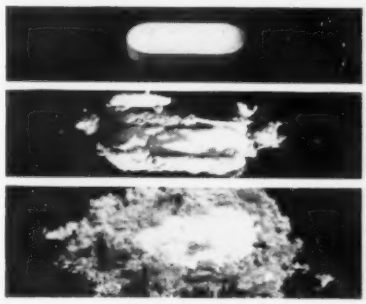
Buffered Pabirin® *Tablets*

Each tablet contains:

Acetylsalicylic acid (5 gr.)	300 mg.
Para-aminobenzoic acid (5 gr.)	300 mg.
Ascorbic acid	50 mg.
Dried aluminum hydroxide gel	100 mg.

All Buffered Pabirin is sodium- and potassium-free.

Dosage: Two or three tablets 3 or 4 times daily.



Photographs show 2-stage Tandem Release disintegration.

SMITH-DORSEY • a division of The Wander Company • Lincoln, Nebraska • Peterborough, Canada

Exactly how does new Halodrin* restore the "premenopausal prime" in postmenopausal women?

Webster defines "prime" as the period of greatest health, strength, and beauty. In a woman, these are the childbearing years between puberty and menopause—the years when her hormone production is highest.

The inevitable reduction in this hormone production as she enters the menopause often results in physical discomfort in the form of hot flushes, nervousness, insomnia, or a multiplicity of other symptoms with which you are familiar. Superimposed on this physical picture is the psychic trauma brought on by this unavoidable evidence of aging. The thing that brings her to a physician is simply that she "feels bad."

You can't make her 35 again—but the odds are good that you can make her feel like it! The secret is a combination of reassurance and hormones. The exact form and amount of the former defy objective analysis, but the latter can now be provided with scientific precision. Reduced to essentials, here is the explanation of exactly how hormones—in the form of Upjohn's new Halodrin—restore the "premenopausal prime."

The normal premenopausal woman excretes estrogens in the urine in the form of estradiol, estrone, and estriol, in an approximate 28-day average ratio of 39:15:46. Starting with this urinary excretion of estrogens, it is possible to calculate backwards and estimate the amount of estradiol that must have been secreted endogenously in order to produce these urinary levels. This is possible because the proportion of estrogens which appears in the urine following parenteral administration has been established in castrated women.

On this basis, the average endogenous output of estrogens is about 160 micrograms per day during a menstrual cycle, and 80 micrograms per day in postmenopausal women (see chart opposite). Therefore, the restoration of the "premenopausal prime" in the postmenopausal woman requires the replacement of approximately the equivalent of the 80 micrograms of estradiol per day that she no longer secretes endogenously.

Oral ethinyl estradiol is about 2 to 2½ times as potent as parenteral estradiol. Therefore, **the replacement of 80 micrograms of endogenous estradiol production per day is accomplished by the oral administration of 32 to 40 micrograms of ethinyl estradiol per day.**

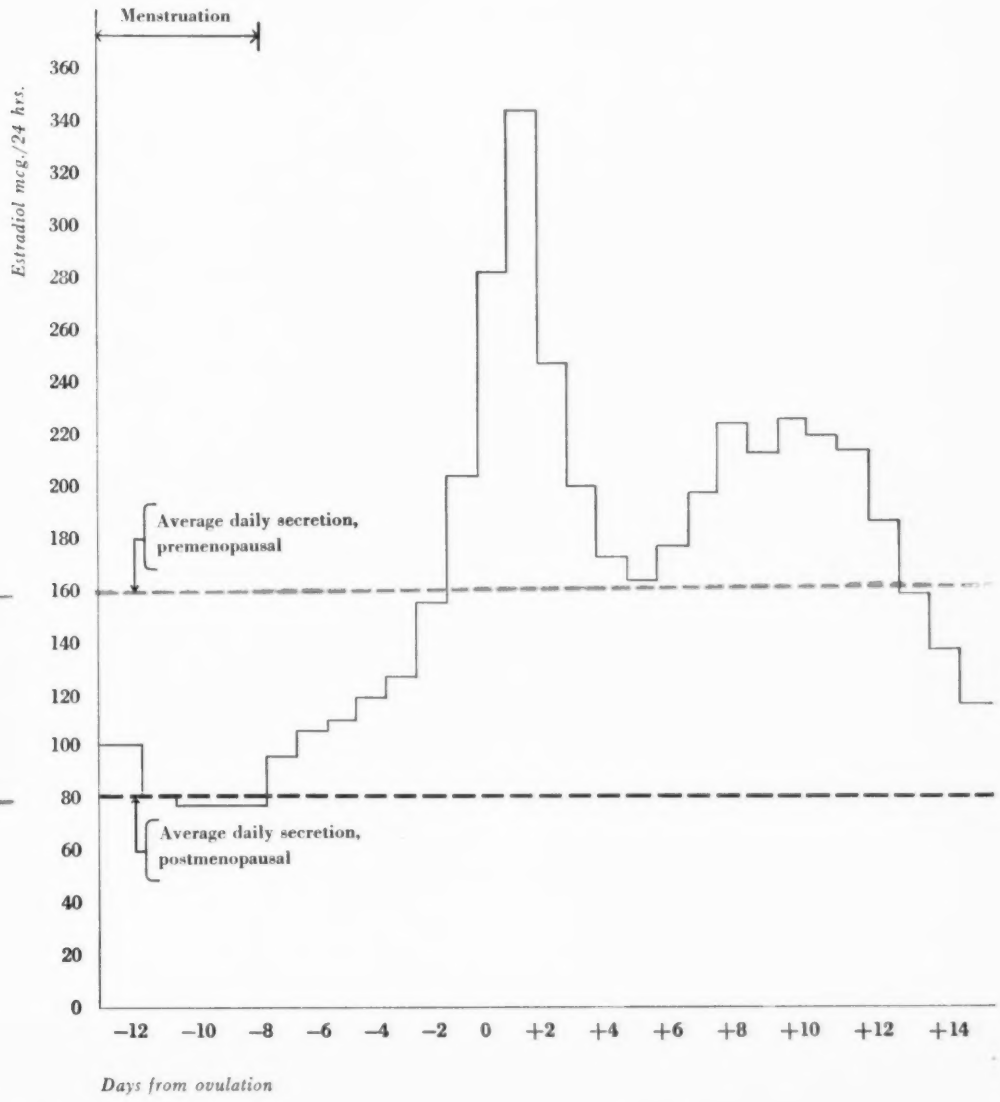
Each Halodrin tablet contains 20 micrograms of ethinyl estradiol, which means that the recommended dosage of 2 tablets per day provides 40 micrograms of ethinyl estradiol. This offsets the loss of 80 micrograms of endogenous estradiol production in the menopausal woman; i.e., restores the "premenopausal prime."

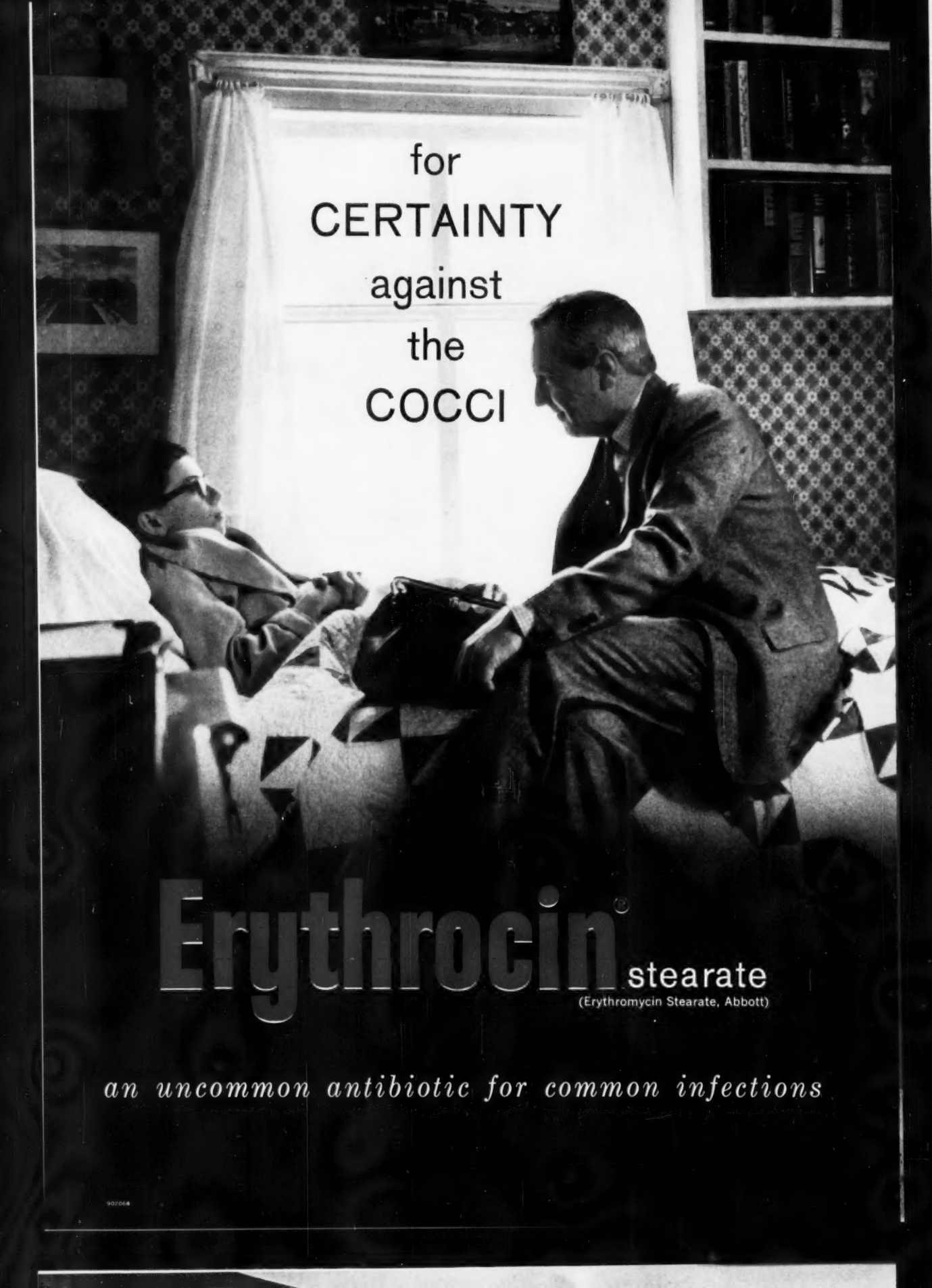
Each Halodrin tablet also contains 1 mg. of Upjohn-developed Halotestin* (fluoxymesterone)—the most potent oral androgen known. The primary purpose is to "buffer" the ethinyl estradiol just enough to prevent breakthrough bleeding, which is obviously undesirable in the menopause. It also exerts other beneficial hormonal effects, one of which, in common with ethinyl estradiol, is a powerful anabolic action so desirable in patients of advanced years.

Upjohn

*TRADEMARK, REG. U.S. PAT. OFF.

Endogenous estrogen secretion (mcg./24 hours)
(calculated from average 24-hour urinary excretion of estradiol, estrone, and estriol)




for
CERTAINTY
against
the
COCCI
Erythrocin®
stearate
(Erythromycin Stearate, Abbott)
an uncommon antibiotic for common infections
902068

after millions of prescriptions

...an unparalleled safety record

provides fast, high blood and tissue concentrations

Because ERYTHROCIN Stearate is rapidly absorbed, patients get therapeutic blood and tissue levels within 30 minutes. High, peak levels occur between one and two hours—and effective concentrations are maintained for at least six hours. Always at hand, then, against more critical infections is ERYTHROCIN-I.M.—the only intramuscular form of erythromycin available.

backed by years of clinical effectiveness

Actually, every prescription you write for ERYTHROCIN is backed by more than six years of clinical effectiveness against coccal infections. And, with the problem of antibiotic resistance becoming more important daily, the value of ERYTHROCIN as a day-to-day anticoccal agent is dramatically underlined.

supported by an unparalleled safety record

During all the years ERYTHROCIN has been prescribed, serious reactions have been practically nonexistent. Unlike penicillin, allergy is no problem. And, in contrast to "broad-spectrum" action, the normal flora of the intestinal tract is virtually unaltered with ERYTHROCIN therapy.

offers bactericidal activity

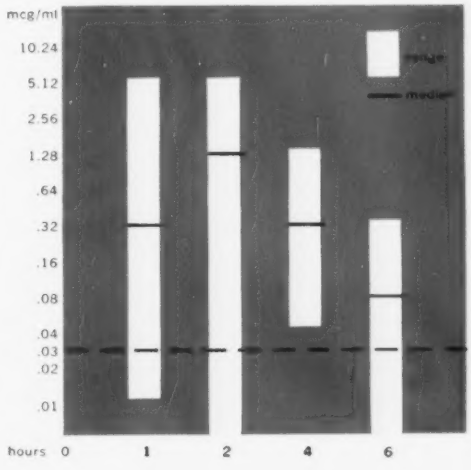
Unlike broad-spectrum antibiotics, ERYTHROCIN is classed as a bactericidal antibiotic. It offers lethal action against common coccic invaders—resulting in prompt clinical response.

provides convenient dosage forms

Usual adult dose is 250 mg. four times daily. Children's dosage is reduced in proportion to body weight. ERYTHROCIN comes in Filmtabs® (100 and 250 mg.), bottles of 25 and 100. Also in oral suspension and for intramuscular use. Won't you prescribe ERYTHROCIN doctor? Abbott

if you're concerned with blood levels...

Dotted line shows actual inhibitory concentrations against most organisms. Note the high ranges and medians of ERYTHROCIN Stearate at one, two, four and six hours. Data represents three studies with adults. Each was given one 250-mg. Filmtab.



And where you need a consistent uniform response that only an injectable form can provide, remember—**ERYTHROCIN-I.M.**(Erythromycin Ethyl Succinate, Abbott) and **ERYTHROCIN LACTOBIONATE.**

®*Filmtab—Film-sealed tablets, Abbott; pat. applied for.*

there's pain and inflammation here... it could be mild or severe, acute or chronic, primary or secondary fibrositis—or even early rheumatoid arthritis

more potent and comprehensive treatment than salicylate alone

. . . assured anti-inflammatory effect of low-dosage corticosteroid[1]

. . . additive antirheumatic action of corticosteroid plus salicylate[2-5] brings rapid pain relief; aids restoration of function.

. . . wide range of application including the entire fibrositis syndrome as well as early or mild rheumatoid arthritis

more manageable corticosteroid dosage

. . . much less likelihood of treatment-interrupting side effects[1-6]

. . . simple, flexible dosage schedule

in any case
it calls for

Sigmagen®

corticoid-salicylate compound

tablets

Composition

Meticorten® (prednisone)	0.75 mg.
Acetylsalicylic acid	325 mg.
Aluminum hydroxide	75 mg.
Ascorbic acid	20 mg.

Packaging: Sigmagen Tablets, bottles of 100 and 1000.

References: 1. Spies, T. D., et al.: J.A.M.A. 159:645, 1955. 2. Spies, T. D., et al.: Postgrad. Med. 17:1, 1955. 3. Gelli, G., and Della Santa, L.: Minerva Pediat. 7:1456, 1955. 4. Guerra, F.: Fed. Proc. 12:326, 1953. 5. Busse, E. A.: Clin. Med. 2:1105, 1955. 6. Sticker, R. B.: Panel Discussion, Ohio State M. J. 52:1037, 1956.

Acute conditions: Two or three tablets four times daily. After desired response is obtained, gradually reduce daily dosage and then discontinue.

Subacute or chronic conditions: Initially as above. When satisfactory control is obtained, gradually reduce the daily dosage to minimum effective maintenance level. For best results administer after meals and at bedtime.

Precautions: Because Sigmagen contains prednisone, the same precautions and contraindications observed with this steroid apply also to the use of Sigmagen.

SCHERING CORPORATION • BLOOMFIELD, N. J.

60-4-649

Schering

ASIAN FLU VIRUS

(Continued from Page 168)

demiology, also urges all other people to be immunized. A flu shot last year does not guarantee immunity against a possible outbreak expected between now and March. A booster gives the best protection.

Many deaths which followed Asian flu attacks last year were caused by secondary invasions of bacteria. Once a person is weakened by influenza, his body is less able to ward off common bacterial infections. Consequently, persons who suffer a bad attack of Asian flu should not return to work without a physician's approval.

Dr. Hennessy urges shots should be obtained before Asian flu gets started. "An epidemic peak is reached rapidly, and blankets a large portion of the population. In last year's epidemic, the U. S. National Health Survey reported 12,000,000 new cases in a single week.

"Influenza occurs almost every year," Dr. Hennessy says. "It has appeared in epidemic form for many centuries. Research on the control of the disease has not yet produced effective and practical chemical preventatives, the only effective measure is vaccination.

For the best protection, a vaccine must now contain a strain of the currently prevalent family of influenza ('A') virus. The influenza virus can change its makeup, he explains. It has done so four times in the last thirty or forty years that it has been studied.

BLUE SHIELD PROFESSIONAL RELATIONS CONFERENCE

More than 250 Blue Shield Plan physician-trustees and executives, as well as state and local medical society officers and secretaries, attended the 1959 Blue Shield Professional Relations Conference held February 9-11 at the Drake Hotel, in Chicago.

This Conference, which brings together representatives of the medical profession and Blue Shield for the purpose of discussing matters of mutual interest, has been held annually since 1951 under the sponsorship of Blue Shield Medical Care Plans, the National Association of Blue Shield Plans.

The 1959 program features as speakers many nationally known medical leaders, including Louis M. Orr, M.D., Orlando, Florida, president-elect of the American Medical Association; Dr. Leland McKittrick, Brookline, Massachusetts, chairman of the AMA Council on Medical Education and Hospitals, and Donald Stubbs, M.D., Washington, D. C., chairman of the Board of Blue Shield Medical Care Plans. Dr. Orr will discuss "The Social, Economic and Political Factors Affecting Medical Care Today;" Dr. McKittrick will talk on "The Criticisms of Blue Shield—What They Signify and How to Answer Them;" and Dr. Stubbs' subject is "Blue Shield's Responsibility to Medicine."

For the first time, individual invitations have been extended to Presidents of all state medical societies to attend the Conference. Their presence is felt to be particularly important this year in view of expected efforts by local medical groups in the year ahead to implement the recent action of the AMA calling for the development of special forms of medical care coverage for senior citizens through voluntary programs such as Blue Shield.

An open invitation is also extended to physicians throughout the country who may be interested in attending the Conference.

AWARDS FOR MANUSCRIPTS ON OBSTETRICS AND GYNECOLOGY

The Division of Obstetrics and Gynecology of the International College of Surgeons announced its second annual competition for two awards for the best manuscripts on a phase of obstetrics and gynecology. The first award will be $500 and the second $300.

The contest is limited to (1) interns, residents, or graduate students in obstetrics and gynecology, or (2) to those engaged in the practice or teaching of the specialty. Contestants must hold a degree of medicine from an accredited college of medicine. Fellows of the International College of Surgeons are not eligible.

Manuscripts of not more than 5,000 words must be submitted on or before June 1, 1959, to Harvey A. Gollin, M.D., secretary of the prize committee, 55 East Washington Street, Chicago 2. For information on contest rules, write to Dr. Gollin.

"The purpose of this contest is to advance the art and science of obstetrics and gynecology in accordance with the principles of the International College of Surgeons and with the primary aim of the College to extend the frontiers and elevate the the standards of all branches of surgery," it was announced by August H. Daro, M.D., Chicago, secretary of the Division of Obstetrics and Gynecology.

FIRST DIRECTORY OF BLOOD FACILITIES

The first comprehensive directory and description of blood facilities and services ever compiled in this country was released today by the Joint Blood Council, a nonprofit national organization with headquarters in Washington, D. C.

It shows the location of facilities, the extent of their operations, how they are organized, what specific services they offer and other information of importance to physicians, hospitals and any

(Continued on Page 178)

Restore G. I. harmony

promptly—in virtually all diarrheas—with

DONNAGEL®

Robins

or DONNAGEL® with NEOMYCIN

These comprehensive formulae provide adsorbent, demulcent, antispasmodic and sedative effects—with or without an antibiotic, as may be desired. For prompt and more dependable control of virtually all diarrheas.

A. H. ROBINS CO., INC., RICHMOND 20, VIRGINIA

Ethical Pharmaceuticals of Merit since 1878

DONNAGEL: In each 30 cc. (1 fl. oz.):

Kaolin (90 gr.)	6.0 Gm.
Pectin (2 gr.)	142.8 mg.
Hyoscyamine sulfate	0.1037 mg.
Atropine sulfate	0.0194 mg.
Hyoscine hydrobramide	0.0065 mg.
Phenobarbital (1/4 gr.)	16.2 mg.

DONNAGEL WITH NEOMYCIN:

Same formula, plus

Neomycin sulfate	300 mg.

(Equal to neomycin base, 210 mg.)

...for all ages...in all seasons

"a highly effective antitussive"[1]

Preferred by patients as to "effectiveness, taste and absence of undesirable side-effects"[2]

Robitussin: Each 5-cc. teaspoonful contains glyceryl guaiacolate 100 mg.

Robitussin A-C: Same formula, plus prophenpyridamine maleate 7.5 mg. and codeine phosphate 10 mg. per 5 cc. Exempt narcotic.

Supply: Bottles of 4 fl. oz., 1 pint and 1 gallon.

1. Bickerman, H. A.: *In* Drugs of Choice 1958-1959, ed. by W. Modell, Mosby, St. Louis, 1958, p. 562.

2. Hayes, E. W., and Jacobs, L. S.: Dis. Chest 30:441, 1956.

A. H. Robins CO., INC., RICHMOND 20, VIRGINIA

Ethical Pharmaceuticals of Merit since 1878

Robitussin® or Robitussin® A-C

Robins

ROBITUSSIN WITH ANTIHISTAMINE AND CODEINE

FIRST DIRECTORY OF BLOOD FACILITIES

(Continued from Page 176)

person or organization interested in blood and its derivatives.

The directory is based on data obtained from a detailed questionnaire sent to all known blood banks, hospitals and clinics that offer blood-handling services. The questionnaire was sent to 3,150 institutions and 2,202 replied. Those that failed to return the information will have an opportunity to supply it for future directories.

"The directory supplies vital information long needed by physicians, hospital staffs and others associated with the practice of medicine," according to Dr. Leonard W. Larson of Bismarck, N. D., president of the Joint Blood Council. "We now for the first time have a central reference and index to institutions and agencies concerned directly or indirectly with the therapeutic use of blood and its derivatives. We are grateful for the cooperation we received and are satisfied that the information presented is as complete as possible at this time. We are looking forward to listing virtually every blood facility in the United States in future revisions of the directory."

The directory will be distributed free by the council to all institutions and organizations that participated in its preparation, according to Dr. Frank E. Wilson, executive vice president. Others may obtain it at the cost price of $1.50 each from the Joint Blood Council headquarters, 1832 M Street, N.W., Washington 6, D.C.

The council was formed three years ago by the American Association of Blood Banks, the American Hospital Association, the American Medical Association, the American National Red Cross and the American Society of Clinical Pathologists. Its primary purpose: "To establish a national blood program in order to assure an adequate supply of blood and blood derivatives to the civilian and military population at all times of peace or emergency and to take all appropriate action in connection therewith."

The directory is presented in three parts: Part I lists all 2,202 cooperating blood facilities, with detailed description data, in alphabetical order by state and city. Part II is a summary of all "community blood banks" which are not administratively controlled by specific hospitals or the American Red Cross. Part III lists all Red Cross regional centers, with appropriate data. The detailed classification of facilities indicates the degree of specialization in the administration, processing and storage of blood and its derivatives as well as the extended coverage offered by it.

Information brought out in the survey and directory includes the following:

1. Of the facilities listed, 1,832 administer whole blood. Also 1,287 administer plasma, 1,021 serum albumin, 994 packed red blood cells and 311 platelets, with many of the facilities engaging in a number of these activities.

2. Many of the institutions also are engaged in storage of other body tissues. Artery banks are maintained by 116, eye banks by thirty-six, bone banks by 200, skin banks by twenty-four and mother's milk banks by twenty.

3. A total of 1,325 blood banks store whole blood, record donor histories, and have as their primary purpose the recruitment of donors and complete laboratory blood processing. The directory shows whether these banks obtain less than half or more than half their blood from their own recruiting efforts and whether blood processing includes compatibility (crossmatch) testing.

4. Two out of every three organizations listed have no reciprocity system for the exchange or re-supply of blood. Of the remaining one-third, which do participate in a national system, 470 use the American Red Cross system, 240 that of the American Association of Blood Banks, and 110 use both systems.

5. Community blood banks and Red Cross regional centers present an entirely different picture with regard to reciprocity, as shown by these data:

Reciprocity System	*Community Banks*	*Red Cross Centers*
American Association of Blood Banks	62	0
American Red Cross	0	41
Both AABB and Red Cross	19	8
None	18	0
Total	99	49

The directory is the forerunner of a complete report of the activities of most organizations engaged in blood services of any kind. This forthcoming report will present the details of operations, quantities and persons serviced, practices and procedures, and other statistical data which were collected during 1957 and 1958 under a project directed by a committee of eminent physicians and scientists.

Members of the Project Advisory Committee are: Frank E. Wilson, M.D., chairman; Kenneth M. Brinkhous, M.D., Roger W. DeBusk, M.D., David N. W. Grant, M.D., James J. Griffitts, M.D., Max M. Strumia, M.D., Frank G. Dickinson, M.D., and George W. Hervey, M.D.

Officers and directors of the Joint Blood Council are: President Leonard W. Larson, M.D.; Vice President LeRoy E. Bates, M.D.; Executive Vice President-Secretary Frank E. Wilson, M.D.; Treasurer Oscar B. Hunter, Jr., M.D. Other Board members are: Kenneth B. Babcock, M.D., James D. Barger, M.D., Sam T. Gibson, M.D., W. Croft Jennings, Frank W. Konzelmann, M.D., Walter B. Martin, M.D., and E. Eric Muirhead, M.D.

(Continued on Page 182)

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1. Based on estimate by Van Volkenburgh, V. A., and Frost, W. H.: Am. J. Hygiene 71:122 (Jan.) 1933

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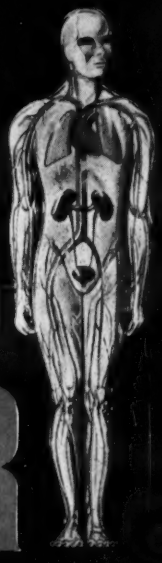

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Reinhardt, D. J.:
Delaware State Med. J. **30**:1, January 1958.

RESULTS

"We have presented a group of 48 patients previously treated with a variety of antihypertensive agents." "Upon the addition of chlorothiazide to their regimens, there was realized an additional blood pressure lowering effect of 23 mm. systolic and 11 mm. diastolic."

Bunn, W. H., Jr.:
Ohio State Med. J. **54**:1168, September 1958.

MINIMAL SIDE EFFECTS

"There is an extremely wide range between therapeutic and toxic dosage, and no significant side effects and no sensitivity to the drug as yet have been observed." ". . . it seems desirable to add potassium chloride 4 Gm. per day . . . in cases of hypertension. . . ."

Herrmann, G. R., Hejtmancik, M. R., Graham, R. N. and Marburger, R. C.:
Texas State J. Med. **54**:639, September 1958.

dosage: one 250 mg. tablet DIURIL b.i.d. to one 500 mg. tablet DIURIL t.i.d.

supplied: 250 mg. and 500 mg. scored tablets DIURIL (Chlorothiazide) bottles of 100 and 1000.

(Continued from Page 178)

MICHIGAN'S BLOOD BANK WORKSHOP

The third annual workshop in blood bank methods was given October 16-17, 1958, for 30 participants. Exercises included ABO grouping, Rh typing, cross match technic, identification and titration of antibodies, and screening of group O blood for use as universal donor units. Five of those enrolled were residents in Clinical Pathology; the remainder were blood bank personnel, about half being MT (ASCP). Each participant took home two serums containing antibodies and a commercially available panel of test cells capable of identifying the unknowns. This exercise as homework is regarded as of great value in assessing how well we may have succeeded in our didactic efforts. The enclosed copy of the manual we used may be of interest to you. The copy of the program is correct except that Steffanini failed to appear, and if it is to be published, his paper should be deleted.

The annual business meeting covered the following topics. There are 191 individual and 61 institutional members. During 1958 certificates were issued to institutional member banks with provisions for annual sticker renewals similar to that used by the Registry of Medical Technologists.

The Blood Bank inspection program was begun on a voluntary basis, with members of the North Central Clearing House being inspected first. Renewed effort to bring in other hospitals as institutional members has been augmented by personal appearance discussions before meetings of the several districts of the Michigan Hospital Association. Copies of the Joint Commission *Standards for a Transfusion Service* have been distributed to all hospitals.

A brief summary of 1958 activities includes:

1. An extension course entitled Blood Group Genetics was given by Dr. Emmanuel Hackel of Michigan State University sponsored by the MABB was given in Detroit, Flint, and Grand Rapids.

2. A Donor Clinic was presented in April at St. John Hospital, Detroit.

3. A Seminar with demonstrations in coagulation studies was given in January at Henry Ford Hospital.

Projects slated for early consideration include:

(a) An elementary workshop in basic methods of blood bank laboratory technic.

(b) Publication of a *Bulletin* for the Association.

Officers for 1959 are: Elmer R. Jennings, M. D., Detroit, president; Harold E. Bowman, M. D., Grand Rapids, president-elect; Frank R. Ellis, M.D., Eloise, vice-president; Lawrence W. Gardner, M.D., Detroit, secretary-treasurer.

Cancer Comment

(This column sponsored by the Michigan Cancer Co-ordinating Committee, Box 539, Lansing 3, Michigan)

CONTROL OF UTERINE CANCER

The Cytology Program, as it is developing and gaining momentum, concerns itself with every phase of the problem of controlling uterine cancer.

It has now become such an important part of cancer detection that the pathologist has rightly accepted the responsibility of not only making it available but also inducing clinicians to use it on all adult women.

Because of the enthusiastic support of the pathologist, during the past year most of our hospitals with cytologic facilities have increased by approximately 400 per cent the number of cytological examinations. This is as compared with the number of such examinations made a matter of three years ago.

Yet, even in face of such encouraging statistics, we realize we still are not utilizing our pathologists and our laboratory facilities to their peak capacity. We should be, and we could be, doing even better. It is to this end that we are encouraging support of the cytology program by pathologists, tumor registries and physicians themselves.

This interest on the part of the American pathologists is really the most vital part—the actual hub—of the Cytology Program. For the most important individual in obtaining the co-operation of physicians in the use of the vaginal cell examination is the pathologist in the hospital laboratory.

In the United States, as stated above, every trainee in pathology must have a background of cytological training before he can be accepted by his specialty board. This results in all approved training programs being assured of adequate facilities and trained personnel for performing an increasing number of these examinations.

At the present time, pathologists in hospitals are doing everything possible to persuade staff physicians to use cytology as a routine part of their health examination. They accomplish this by reporting interesting cases at the weekly tumor conferences held in the hospitals, by presenting annual statistical reports to all staff members, and by demonstrating facilities they have available for such laboratory work. This method of comprehensive reporting to physicians at hospital levels results in a very high percentage of participation as most physicians in the United States are affiliated with approved hospitals.

HARRY M. NELSON, M.D.

AMA Washington Letter

THE MONTH IN WASHINGTON

Since the release last summer of the much-discussed Bayne-Jones report on medical education and research, the administration has been reviewing the situation and the possible need for Congressional action on federal aid to the country's medical schools.

Just how strong is its case is likely to be determined in the session of the 86th Congress now underway. In the closing phases of the 85th Congress, a health subcommittee of the House took up the subject amid a feeling at that time that proponents had failed to achieve a sense of urgency.

Another year has rolled around, and the climate may be different. The Bayne-Jones report revived the medical school aid issue. Not since the six-year old report from the Magnuson Commission has a medical report been quoted so extensively. The Bayne-Jones report calls for a doubling of medical research spending by 1970 and the immediate start on at least 14 new medical schools.

Secretary Flemming of Health, Education, and Welfare let it be known soon after taking office last summer that he was not going to allow the report to be "put on the shelf to gather dust."

In an address to the American College of Surgeons, Surgeon General Leroy Burney sketched briefly a plan for another consultants' group not unlike the Bayne-Jones committee. It is now looking into the question of need for more physicians in the next decade. No date has been set for the final report. At its first meeting in December, the committee authorized two staff studies to get underway: on construction costs of newer schools and on the financing of present-day medical school operations.

Chairman of the group is Frank Bane, former executive secretary of the Council of State Governments and active in public affairs for more than 30 years. Other members include Dr. Edward L. Turner, American Medical Association's council on medical education and hospitals; Dr. Ward Darley, Association of American Medical Colleges; Dr. Julian Price, AMA trustee; Dr. Edwin L. Crosby, American Hospital Association; Dr. Vernon Lippard, Yale medical school dean; John McK. Mitchell, Pennsylvania medical school dean; Dr. Isador S. Ravdin, Pennsylvania medical affairs vice president; Dr. Clayton G. Loosli, Southern California medical school dean; Dr. Charles E. Smith, University of California public health school dean; Morris Thompson, president, Kirksville College of Osteopathy and Surgery; Harold Hillenbrand, DDS, American Dental Association; Miss Marion Sheahan, National League for Nursing; Dr. Harold L. Enarson, Western Interstate Commission for Higher Education; Emory Morris, DDS, president, Kellogg Foundation; Douglas E. H. Williams, Dunbar Community Association; Fred C. Cole, Ph.D., Tulane; Robert C. Anderson, Ph.D., director, Southern Regional Education Board; Alvin C. Eurich, Ph.D., vice president, Fund for the Advancement of Education; John G. Searle, president, G. D. Searle & Co.; and the Very Rev. Robert J. Slavin, president, Providence College.

Its final report in all likelihood will have a strong influence on the course of legislation.

NOTES

The Office for Dependents Medical Care has decided that this year's contracts for medicare between the Defense Department and state medical societies and other groups will be negotiated by mail. ODMC felt that the whole field had been pretty thoroughly gone over last year and furthermore that administrative costs are no longer an issue. States will be supplied copies of proposed department changes in contracts 45 to 60 days prior to expiration dates, according to Brig. Gen. Floyd L. Wergeland, head of medicare.

The National Air Pollution Conference held in Washington is beginning to produce results. HEW and the auto industry have worked out an agreement on research into devices for controlling auto exhausts. Exhaust experiments are underway at the Robert A. Taft Sanitary Engineering Center on animals, plants and bacteria.

Federal workers contributory health insurance proposal has taken a new lease on life. The AFL-CIO Government Employees Council which speaks for half a million civilian employees is suggesting the following: (1) the U. S. would pay for two-thirds of basic insurance up to a maximum contribution of $14 a month; the worker would pay the balance and could also broaden coverage for himself and family by paying the extra cost himself, (2) there would be a choice of basic insurance such as commercial Blue Cross, Blue Shield, employee union plans, (3) the government would pay the full cost of major medical insurance but the worker would have to have basic coverage; catastrophic coverage would meet 75% of costs.

Congress has failed in past years to enact legislation. Among the reasons has been failure of the various interested groups to get together on a single bill.

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Thiamine HCl (B_1)	10 mg.
Pyridoxine HCl (B_6)	5 mg.
Ferric Pyrophosphate (Soluble)	250 mg.
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Sorbitol	3.5 Gm.

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PR REPORT

SPRING ELECTIONS

This issue of THE JOURNAL *is dedicated to the doctor and his citizenship responsibilities. Although citizenship means many things other than simply exercising the voting franchise, no other public act of the doctor has a more direct effect on the community about him.*

Traditionally the spring elections are contests for the University of Michigan's Board of Regents, the State Board of Agriculture (MSU's governing board), the State Board of Education and the Supreme Court.

This year voters will also select the first six members of the newly created Wayne State Board of Governors, as the transition from county to state administration of that institution is now completed.

All of the state's seventy-four circuit judgeships and most other judicial posts will also go on the ballot. Important dates to remember are:

Feb. 14 Last day to apply for Primary absent voter ballot.

Feb. 16 Primary election day.

Mar. 9 Last day to register for Spring election.

Apr. 4 Last day to apply for General absent voter ballot.

Apr. 6 Spring election day.

TV NETWORK TO CARRY COLORCAST OF "CATARACT EXTRACTION" DURING MCI

On Monday evening, March 9, as a prelude to the Michigan Clinical Institute, television viewers throughout the state will see "live surgery" direct from the operating rooms of Providence Hospital, Detroit.

A cataract extract will be performed.

The public telecast will emanate from the facilities of WWJ-TV and will be broadcast simultaneously by the following outstate television stations contacted by MSMS: WOOD-TV, Grand Rapids; WJIM-TV, Lansing; WNEM-TV, Saginaw; WPBN, Traverse City.

Co-operating with the Michigan Clinical Institute in this educational endeavor will be the Smith Kline & French Laboratories of Philadelphia.

D. H. Kaump, M.D., Detroit, is Medical Coordinator of the television presentation.

MEDICAL ASSISTANTS IN-SERVICE TRAINING PROGRAM HAILED

A Michigan educational project, the first in-service training program ever developed for medical assistants, received praise at the second annual convention of the American Association of Medical Assistants in Chicago, October 31-November 2, 1958.

The local program is sponsored by the Michigan State Medical Assistants Society and the University of Michigan Extension Service. Playing a key role in organizing the training program was the Michigan State Medical Society.

Mrs. Catherine Wygant, chairman of the MSMAS Education Committee, reported to the assembly on the new project and outlined the method of development for possible duplication by other state medical assistants societies.

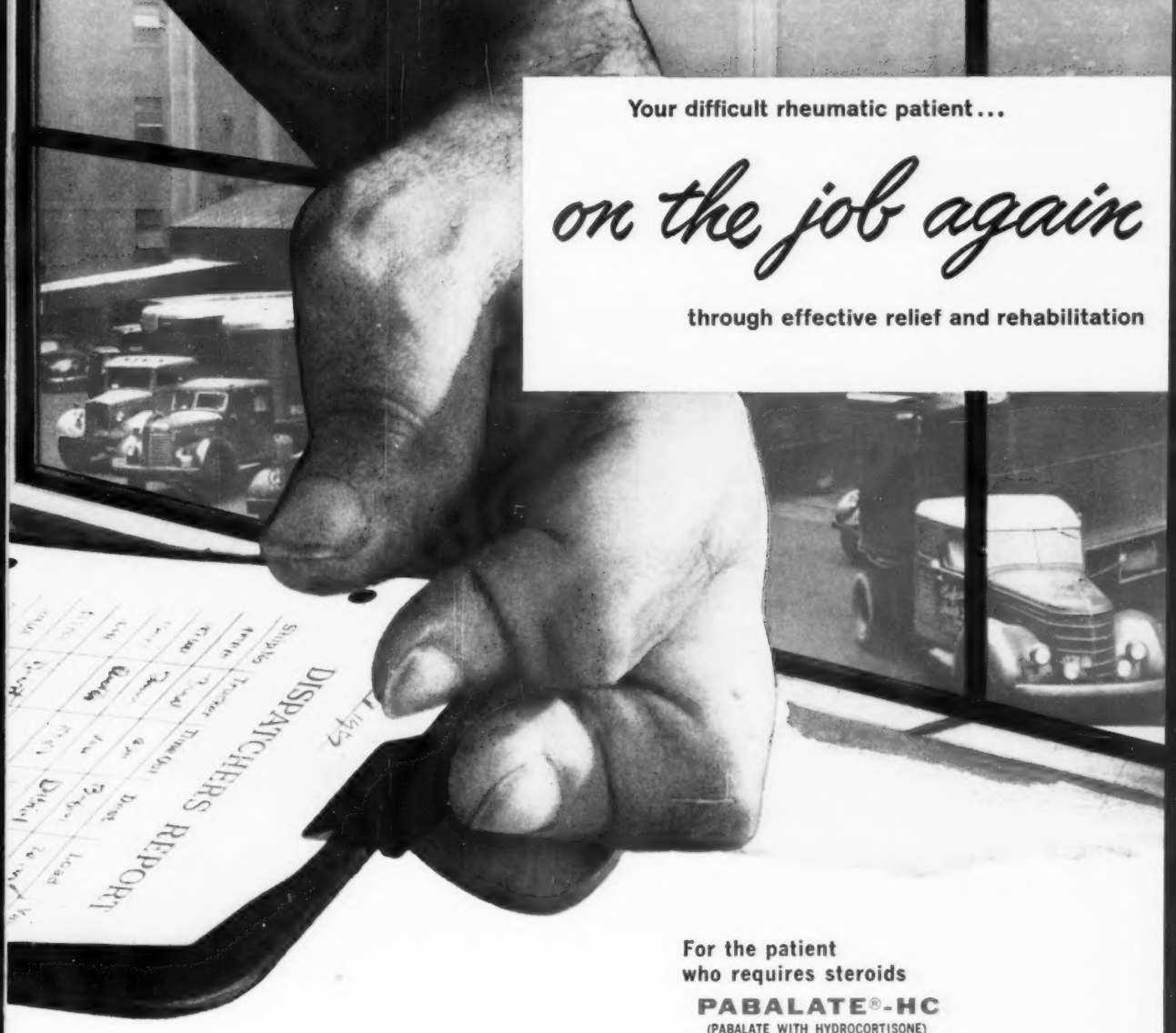
John W. Rice, M.D., Jackson, chairman of the MSMS Advisory Committee to the Michigan State Medical Assistants Society, was elected to serve a three-year term on the National Advisory Committee.

Fifty representatives of the Michigan Society attended the meeting, including official delegates: Miss Donna Hislop, Muskegon; Mrs. Reta Shedd, Albion; Miss Marie Erickson, Saginaw, and Miss Hallie Cummins of Caro. Alternates were: Mrs. Harriet Rolph, Kalamazoo; Miss Elizabeth Kotsch, Detroit; Miss J. Helen Rehm, Ferndale; and Miss Doris Jarrad of Detroit.

Other important Michigan appointments to AAMA for 1959 are: Miss Marlouise Redman, co-chairman of the Program Committee for the 1959 Philadelphia Convention. Miss Hallie Cummins and Miss Doris Jarrad will co-chair the Public Relations Committee and Miss J. Helen Rehm of Ferndale will serve on this committee. Mrs. Wygant was re-appointed to serve on the AAMA Education Committee.

A THOUGHT-PROVOKING COMMENT FROM AN ASTUTE M.D.

"In my judgment, the professional man has the biggest stake in the Spring Elections. To a doctor or lawyer, the heads of our universities and the Justices of our Supreme Court are far more important than even the congressmen and governors of our state. The men that make up the governing boards of our two universities with medical schools are going to decide policies which will influence medicine in Michigan for decades to come. It behooves the M.D., who cares, to vote on April 6—when it counts."



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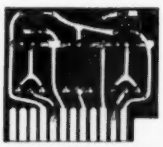

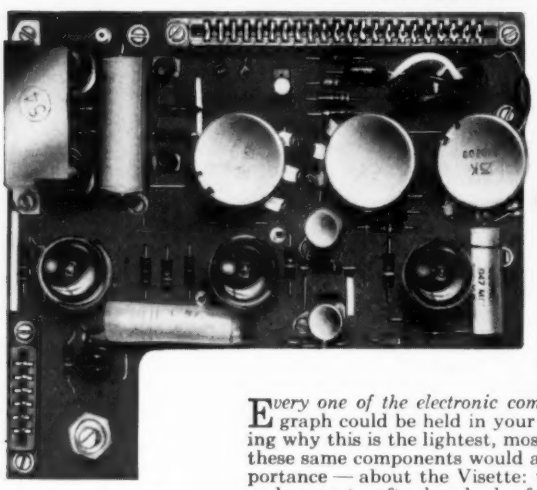

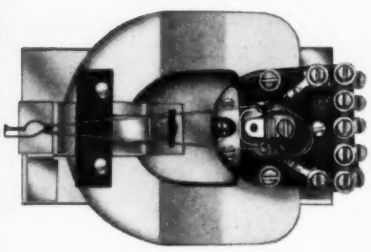

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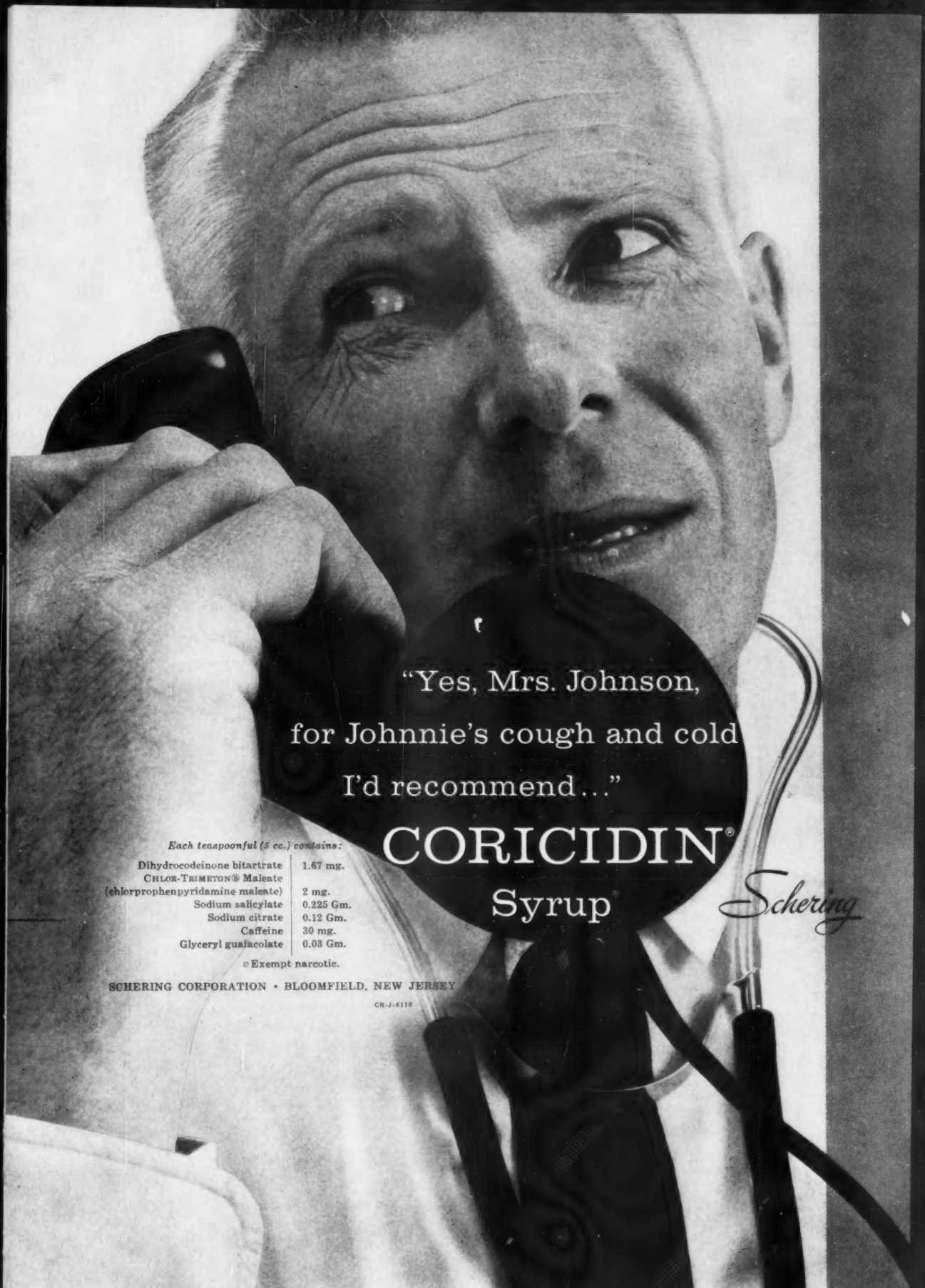
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The JOURNAL

of the Michigan State Medical Society

Issued Monthly Under the Direction of The Council

VOLUME 58 FEBRUARY, 1959 NUMBER 2

The State of the Nation's Health and Health Problems

By Leonard A. Scheele, M.D.
Morris Plains, New Jersey

IN THESE troubled times when nation pits itself against nation, political ideology struggles against ideology, and when conquest of outer space appears to be such an important goal, it is worth turning one's attention for a moment to health problems which are universal in nature, and whose solution is hoped for by all nations and peoples. Here, it is my privilege to review a number of health problems, and to point to possible ways to speed up solutions of many of them. Here, we need no difficult and long discussions, arbitration, and international police forces to speed up agreement and solutions. We do, however, need some vigorous action.

Four changing patterns of disease which affect us will be discussed. These are: (1) the pattern of mortality and morbidity, (2) the pattern of diagnosis, (3) the pattern of therapy and follow-up, and (4) the pattern of community services.

Change is one of the unchanging certainties but there is nothing fixed about the direction or the rate of change. In these patterns, we find wide variations but it is safe to say that the rate of change in each of them has accelerated during the past ten to fifteen years.

Delivered at Wayne State University College of Medicine Alumni Association 90th Anniversary and Clinic Day, May 7, 1958.

Dr. Scheele is President, Warner-Chilcott Laboratories, Morris Plains, New Jersey; formerly, Surgeon General, U. S. Public Health Service.

The Pattern of Mortality and Morbidity

Our knowledge of the patterns of mortality and morbidity (illness) is derived chiefly from the certification of the causes of death by physicians, and from their reports of cases of certain diseases to state agencies. For reasons I shall discuss later, mortality data are more complete and up-to-date that much of the data on morbidity.

The mortality experience over the past thirty years shows significant changes. The trend in age-adjusted death rates has been downward, but since about 1938, the rate of decline has more than doubled. The total rate in 1952 was about eight per 1,000 population as compared with thirteen per 1,000 in 1925.[1]

Males have experienced higher death rates than females throughout the period, but it is of particular significance that the difference has increased by about 20 per cent. The ratio of female to male deaths was 1:1.1 in 1925, and in 1952 it was 1:1.5. Some of this differential may be explained by the sharp reductions in female mortality due to puerperal septicemia and other complications of pregnancy. However, for reasons not yet fully explained, male death rates from all forms of cancer and certain cardiovascular diseases are strikingly higher than female rates.

The rate of decline in total mortality has been most marked in the younger age groups with little, if any, change in the trends for persons over

sixty-five years of age. Again, when we consider specific causes of death, we find that the major reductions have occurred in mortality due to infectious diseases. For example, mortality from common infections of childhood has been reduced by 80 per cent among children under fifteen years of age in the past decade.

Other gains in the same period include: a drop in the total death rate from acute rheumatic fever by 73 per cent; from pneumonia and influenza, by 56 per cent; and from syphilis, 63 per cent. Tuberculosis mortality has experienced spectacular reductions; in the past five years, an annual decline of 20 per cent has been recorded.

It is customary to emphasize that current high death rates due to chronic diseases are associated with the aging of the population. This is true and concern for older persons, that is, sixty-five years of age and over, is justified by the inordinately high rates in these age groups. However, the pattern of mortality reveals that as we control infections, we are likely to see more cases of chronic disease in younger age groups.

For example, heart disease is the leading cause of death at all ages from twenty-five years onward. Twenty-seven per cent of all cardiovascular deaths occur among men and women in the prime of life, forty-five to sixty-four years of age. Cancer and other malignant tumors are among the leading causes of death in every age group from one year onward.

Congenital malformations are a major cause of death among children under fifteen years of age, and in infants under one year they take an enormous toll, second only to conditions associated with pre-maturity. In this connection, it is worth mentioning that 70,000 stillbirths are reported annually—a vastly under-reported loss of life due to conditions not yet fully understood.

Mortality data give us no real measure of the changing patterns of disease or of the consequences of sickness and injury. No State public health laws and regulations require the reporting of all infectious diseases and only a few states require the reporting of cancer, rheumatic fever, and occupational diseases. Epidemiologic studies and sickness surveys provide the most significant information on the incidence, prevalence, and severity of disabling conditions. However, studies of this sort usually cover relatively small populations and are conducted sporadically. The Public Health Service is now collecting data and will report periodically on sickness in the United States, especially as it results from chronic diseases. This was an excellent step which had been long overdue.

The incidence of infectious diseases over the past thirty years[1] stimulates some interesting speculation. Here we are dealing with the interaction of at least two biological universes—the universe of the pathogenic organism and the universe of the human host. Changes in either universe will be reflected by changes in the interaction. Genetic and environmental factors in both universes are involved and both the natural and the social environment must be taken into account. Occasionally, infections appear and disappear without satisfactory explanation. For example, Von Economo's, or lethargic encephalitis appeared in this country for the first time at the close of World War I, reached its peak in the 1920's, and then simply disappeared, for unknown reasons.

Man-made changes, however, have produced the most striking effects on the incidence of infectious diseases. It is believed that medical intervention through vaccination has been the principal factor in the disappearance of smallpox from this country. The few cases with confirmed diagnoses that occur annually invariably prove to have been contracted outside the United States. Very much the same is true of locally acquired malaria, and in this instance the disappearance of the parasite is due chiefly to direct attack on its vectors, anopheline mosquitoes.

Diphtheria and typhoid fever have declined rapidly to the point where increasing numbers of private practitioners and health officers have never seen a case of either disease. I might say that many medical schools and teaching hospitals are experiencing a similar dearth of clinical material in other common infections, such as scarlet fever, streptococcal sore throat, meningococcal meningitis, measles, and whooping cough. Little reduction in the incidence of these infectious diseases has been observed, but the trends in case fatality rates indicate a significant reduction in the numbers of cases requiring hospitalization. With a wide choice of effective therapeutic agents at their command, physicians are now able to control these diseases swiftly.

There is, however, a group of infectious diseases, all of viral etiology, which present a tremendous challenge to basic, clinical, epidemiologic, and developmental research. Over the past thirty years,

there has been little or no recognized change in the incidence of such viral infections as the common cold. On the other hand, there have been striking increases in the incidence of poliomyelitis and infectious hepatitis. In addition, certain viral pathogens have been identified for the first time within the past ten years, although many of these may have been present for a long time. These include the Coxsackie viruses and the APC or adeno viruses, all associated with relatively minor upper respiratory diseases. In recent years, primary atypical pneumonia has also been associated with as yet unidentified viruses. These little-understood infections cause a great deal of sickness and cost the nation some 100-million days of productive work annually.

Research on viral diseases is of tremendous importance. These infections undoubtedly account for a large proportion of the illnesses the physician is called upon to diagnose and treat. With rare exceptions, diagnostic, prophylactic, and therapeutic techniques leave much to be desired. We can, however, expect rapid improvement in techniques to prevent and treat viral diseases from the intensified research now in progress. Paralytic poliomyelitis, for example, can now be prevented by vaccination. A vaccine for several strains of adeno virus has been tried successfully, and influenza vaccine was successfully used last fall and winter.

Research on infectious diseases generally must continue. While it can be said that most of these diseases have lost their sting, we must not let the bars down. We think of diphtheria and smallpox as things of the past. They won't be if we become negligent and don't have children immunized. We were horrified to see a major outbreak of diphtheria in Kentucky two years ago and to see a report just before that on a number of recent cases in Detroit. These occurred in local areas where the number of children who had been immunized was small. Typhoid can break out if our water and milk supplies are not kept clean. We need vigorous and well supported programs in our official health agencies.

We need to use techniques that are known to us. One that comes to mind is the control of dental caries. Nineteen out of twenty people develop tooth decay. With our present large population and the limited number of dentists, new cavities are occurring faster than they can be filled. The cost of dental care was approximately 16 per cent of the sum spent for total health care by families last year. This made the cost of dental care approximately $1.5 billion. However, something can be done about reducing this toll in the future, and many communities which did not have natural fluorides in their water as some others did, have restored this missing element, so that all may benefit from it. The addition of one part per million of fluorine to our drinking water will reduce caries in our children by as much as 60 per cent.

This procedure has been carefully and scientifically studied and has been shown to be safe. That is why our major health organizations, like the U. S. Public Health Service, state and most city health departments, the American Medical Association, the American Dental Association, the American Public Health Association and many others endorse its use. That is why over 1,400 cities with a total population of over 30 million people were using fluoridation at the end of September, 1956. Among the larger cities adopting this preventive dental health measure are Chicago, Philadelphia, Baltimore, Washington, Pittsburgh, Cleveland, Milwaukee, San Francisco, St. Louis and Buffalo.

The Pattern of Diagnosis

I realize that the patterns of diagnosis, therapy, and follow-up are interlocking and that the physician today is confronted with changes in all these aspects of his practice. The problems of diagnosis, however, are of sufficient importance to warrant separate consideration.

Although his clinical impressions and, equally important, his knowledge of the patient are his most valuable assets, the physician is also aware of his need for a wide variety of diagnostic services, both laboratory and consultative. It is not surprising, therefore, that increasing emphasis is being placed on the development of simplified diagnostic techniques which the physician can employ in his office, as well as on improvement of laboratory and consultative services for his use.

We have not made as much progress in these directions as we hope can be made in the near future through expanded medical research and the development of community services by private and public agencies. There have been some notable advances in the past ten years, however.

Screening techniques suitable for the early detection of diabetes mellitus, glaucoma, certain cardiovascular conditions, and certain forms of

cancer have been developed. A number of health departments, professional societies, and voluntary agencies, working together, have sponsored local programs to detect some of these conditions. Case-finding programs in tuberculosis and syphilis have been conducted on a large scale for more than ten years.

There are rheumatic fever clinics in more than 600 communities, sponsored by private and public agencies and offering consultative services to private physicians, as well as auxiliary nursing, social case work, nutritional, and educational services for their patients. Cardiovascular evaluation centers have been set up in a few cities to which physicians may refer patients for a determination of the physical demands of numerous occupations and the capacity of the patient to perform them. In some areas, cardiovascular teams visit rural hospitals periodically to assist physicians there in the use of the electrocardiograph and to provide them with consultative services.

Community mental health services are available in over 1,300 localities. Most of these programs offer psychiatric consultation to local physicians, as well as services to patients referred by their physicians. Although the emphasis in community mental health services in the past has been primarily on emotional problems in children, the trend is now toward services for all age groups.

There are more than 900 cancer clinics in the United States, of which about 260 provide diagnostic services only. In addition to these clinics, tissue diagnostic and cytodiagnostic services are available in many hospitals and laboratories. Twenty-nine states, Alaska, Hawaii, and Puerto Rico provide some type of cancer service or facility. With a few exceptions, state supported services are limited to persons unable to pay for care. However, Louisiana and Wisconsin provide free tissue and cytodiagnostic service for any case, and Maryland provides cytodiagnostic service on the same basis.

Since 1953, a new and enormously valuable type of service has been developed through the cooperation of private and public agencies: namely, the poison control center. These centers are in operation in fourteen cities and as many more communities are engaged in developing centers. Several states have established state-wide poison control services.

Although the centers vary in the extent and type of activity, all of them provide twenty-four-hour central information service on the composition, toxicity, antidotes, and treatment of every kind of poisoning. The need for this type of local service has increased in the past ten years as the number of new chemicals introduced into the home has grown in almost geometric proportion. Physicians who are called on to treat cases involving accidents with chemicals are frequently at a great disadvantage since the offending substance is not always revealed on the container. Even if this is known, information on its toxic properties and appropriate methods of treatment is not to be found in standard textbooks and other sources customarily available to the physician in an emergency.

I might add that the American Academy of Pediatrics and the American Medical Association have provided the professional leadership in this movement, through their committees on poisoning and on pesticides and toxicology, respectively. In the fall of 1955 the American Public Health Association established a subcommittee on chemical poisons. A national poison control center to serve the state and local programs is being established.

Obviously, the services I have mentioned comprise only a small fraction of the resources which the general practitioner may draw upon in difficult diagnoses. Laboratories under various auspices also offer a wide range of diagnostic services. In general, however, such sources tend to be concentrated in the larger communities and it is safe to say that a considerable proportion of the nation's general practitioners do not have the full range of diagnostic services readily accessible, especially when dealing with ambulatory patients.

The improvement of techniques for the early detection of chronic diseases is a primary goal of medical research. If the potentialities of early detection can be fully realized, it seems probable that we shall have a favorable prognosis in a much larger proportion of the cases of chronic disease. More cases will be found in the earliest stages and it now appears that a large proportion of them will be found in younger age groups than are usually reached by conventional diagnostic methods.

The majority of cases of cancer, cardiovascular disease, diabetes, and other important degenerative conditions are diagnosed for the first time in persons forty-five years of age and over and they are first diagnosed in moderately advanced or well advanced stages.

The experience of the National Cancer Institute with the Papanicolaou cytologic test in the detection of carcinoma of the uterine cervix indicates that the disease can be detected with this technique in the earliest, pre-invasive stage. Furthermore, data[2] on approximately 100,000 women show that pre-invasive cervical cancer exists in larger proportions among younger women than has been supposed. Nearly 70 per cent of the pre-invasive cases were detected in women under forty years of age, with the surprising rate of 28 per cent in the third decade, twenty to twenty-nine years.

In contrast, morbidity (illness) surveys show that only 22 per cent of localized cervical cancers and only 15 per cent of metastatic cases are diagnosed by conventional methods in women under forty. On the average, an interval of about fifteen years occurs between the development of intro-epithelial tumors and the appearance of localized cervical cancer. The wide use of the Papanicolaou test thus would afford an opportunity to reduce drastically the second most important cause of cancer deaths in women.

Data available from autopsy series and morbidity surveys indicate that at least 15 per cent of occult cases of adenocarcinoma of the prostate are found in men under fifty, in contrast with less than 2 per cent of the clinically evident cases first diagnosed. The average interval in this instance is estimated at six years.

Cytologic examination of prostatic secretions and small-punch biopsy of the prostate are under intensive study and both techniques show some promise of development for early detection. With a suitable technique, it is possible that many more occult cases can be discovered and that a larger proportion of these cases may be found in men younger than the average now reaching diagnosis.

These are a few examples of progress in early detection techniques. There are others and many more will be developed.

The Pattern of Therapy and Follow-up

There is general agreement that advances in the preventive-curative-restorative treatment of diseases and injuries during the past ten or fifteen years have exceeded all such advances in the preceding history of medicine. One has only to mention sulfonamides and antibiotics to experience a direct sense of what has been accomplished.

Probably everyone knows the impact of antibiotics on practice by the nation's physicians. But antibiotics are only part of the tremendous expansion in the field of chemotherapy. In almost every major category of disease, including some mental diseases, the physician now has a choice of useful drugs which, although not always specific or definitive, are certainly more helpful than any he and his predecessors have had in the past.

Developments in cancer chemotherapy research, for example, have been encouraging and are being stepped up. Drugs and hormonal substances are gaining increasing value in the treatment of the leukemias and other forms of cancers. Some lives are being prolonged and the patients are more comfortable. Actually, through early diagnosis and adequate radiological and surgical therapy, the rate of cure in all cancer cases has increased in the past ten years from 15 per cent to more than 50 per cent.

Ten years ago, the physician faced with a case of hypertension had little to offer, except his personal effort to win the patient's co-operation in following a health-conservation regime. Today, the physician has a choice of several drugs—none of which is perfect, none of which is suitable for all cases, but all of which have proved effective in one way or another. Surgical techniques for the treatment of cardiovascular disorders also have made rapid progress. Certainly, unknown numbers of lives have been saved and many more cardiovascular patients can now live for long periods on almost even terms with their illness.

The recent introduction of potent tranquilizing drugs is also bringing about a notable change in the management of increasing numbers of severely ill mental patients. A surprising number of public mental hospitals are returning patients to their home communities under treatment with a tranqualizing drug. This procedure is undoubtedly a constructive move, both in placing carefully selected patients in an environment more conducive to recovery and in easing the patient-load in overcrowded mental institutions. To be effective, however, such a program should be developed in close co-operation with local health departments and local physicians in areas served by the different hospitals. Several states, for example, have worked out such programs before instituting the policy of releasing patients on drugs. The aim here is to insure that such patients have in their own communities the kind of medical and supportive follow-up they need in order to make a satisfactory and lasting adjustment to family and

community life. While the psychiatrist had the major role to play in the care of mental patient, general practitioners now also have a major role to play in the development of such programs.

If the advances in chemotherapy have revolutionized medical practice, they are also revolutionizing public health work. Chemoprophylaxis is not a new concept, but it could not achieve fully effective application before the antibiotic era. The major effect of penicillin therapy in syphilis control, for example, has been to place the primary responsibility for the control of venereal disease in the hands of the general practitioner.

Within the past seven years, a similar trend has begun in tuberculosis control. Isoniazid alone, and in combination, has been proved effective in the treatment of this disease and large-scale case-finding programs have increased the proportion of minimal cases that come to treatment. Although a period of hospitalization is recommended, the length of stay has been greatly shortened. There is no longer a shortage of tuberculosis beds in most parts of the country. Increasing numbers of hospitalized patients are being released under drug therapy with medical supervision in their own communities.

I don't want to leave a wrong impression. So far I may have seemed to indicate great progress in solving many health problems, especially those in the chronic illness field. To be sure that the record is straight, I want to say that we have only scratched the surface. The scientific understanding of chronic illnesses, including mental illness and of viral diseases, can be likened to an iceberg. One-tenth of the volume of the iceberg is above water—and can be seen and dealt with. The remaining 90 per cent of the bulk is hidden.

The nation's current research program is responsible for our ability to see and deal with the smaller fraction of our major health problems. It is for this reason that increase in the number of our research scientists, expansion of research facilities and increase in research is so vital. There is room and need for everyone to put his shoulder to the wheel in support of medical research.

Many unsolved problems are of major size. Let me mention just one, accidents. There is a very compelling need to stir the nation over accidental injuries. They rank fourth as a cause of death for all age groups and rank first among people one to thirty-six years of age. In 1955 they caused an estimated 9,000,000 injuries and 90,000 deaths. They are said to have cost us $10 billion last year. One person is injured every three seconds and accidents account for more disability in this country than any single disease.

Highways and automobiles are being improved, industrial accident rates are decreasing and home accident rates are being reduced slowly. But we still have a long way to go in our study of the human factors in accidents, especially those on the highway if the toll of dead and injured is to be lowered.

What about rehabilitation? It is estimated that 2,000,000 men and women in the United States need rehabilitation in order to work. About one-fifth of these, or 400,000, are so severely handicapped physically that they need care in specialized facilities. The folks needing rehabilitation have chronic illness or injuries of a handicapping nature. Here again, we have barely scratched the surface.

Mental illnesses and defects compose a national problem of staggering magnitude. At any one time there are 725,000 mentally ill patients occupying 47 per cent of all hospital beds in this country. About 250,000 new patients will have their first admissions to such hospitals this year. At the present rate one in every twelve children born in the United States will spend some time in a mental institution. The nation is currently spending more than $1 billion a year in tax-funds for care of the mentally ill, including cash benefits to veterans with mental disorders.

Although improvements have been made during the past 100 years in the medical, psychological, social and legal approaches to mental illness, we are all aware that progress in this field has been slow—discouragingly, tragically, dangerously slow.

One of the most urgent of all needs in the mental health field is that of reducing the average length of hospitalization of mental patients. This is essential both to improve the prospects for returning patients to their homes and communities and to reduce the staggering financial burden of institutional care, the largest part of which is borne by our state and local governments.

One-fourth of the patients in state mental institutions have been hospitalized for more than sixteen years; one-half for more than eight years; and three-fourths for more than two years. The probability of being released alive from a mental hospital decreases rapidly after the first year. During the first two years, there is now about a 50-50

chance of getting out alive. After two years the odds against being released alive rise 16 to 1. And by the time a patient has been hospitalized for eight years, the odds are more than 99 to 1 that he will die in the institution.

In recent years, a few pioneering mental hospitals have made intensive studies and experimented with methods of improving their treatment and general care of the patients, with a view toward their rehabilitation and discharge to their communities. The institutions which have made these efforts have been highly successful, but we need many more such pilot studies and demonstrations with the same objective.

In addition, we need to experiment widely with other types of care than hospitalization. Many programs could be community-centred rather than institution-centered. Foster home care, for example, "half-way houses" for preventive or supportive treatment, might keep many mentally ill persons out of the hospital. Too many patients—especially elderly people and emotionally disturbed children—are committed to mental hospitals because we do not have the kinds of community programs and facilities that would meet their needs more effectively than the general mental hospital for the insane.

The Pattern of Community Services

The changing patterns of mortality and morbidity, of diagnosis, therapy and follow-up, are slowly changing the pattern of community services. There was a time when patient care was almost exclusively in the hands of the physician. He was doctor, druggist, nurse, and friendly counselor. Today's patterns of disease are forcing the community to put at the disposal of the physician and his patients a variety of relatively new services. I am thinking of health services "in the round"—all those facilities and organized programs under private and public auspices: the hospitals, health centers and related facilities, and the programs operated by voluntary and official agencies and professional societies.

In the earlier era, the pattern of community health services was designed to try to cope with widespread, uncontrollable infections, for the major health problems were then attributable to such diseases. Today, our communities need to develop the kinds of services physicians should have for many of their chronically ill patients: for example, better diagnostic aids; co-ordinated services of other health personnel—nurses, social workers, physical and occupational therapists; housekeeper services; and a central source of information concerning where and under what circumstances various kinds of service and care are available.

In our country, community health services emerge from local initiative, local responsibility, and group action in the community. State or national organizations may supply the stimulus for needed community action and may make available limited resources for community health. However, the effective use of total resources—local, state, regional and national—depends upon the response of each community to its health needs.

The process of community action for health is much slower than individual response to the need for medical care. For example, it has taken us eighty-odd years, since the concept of a local health department supervised by a full-time medical officer of health was first enunciated, to attain coverage of 89 per cent of the population with full-time local public health services in 1956.

Once established, community health services also tend to change at a comparatively slow rate. This is true of both public and private services. In 1933, Mary C. Jarrett published her study of chronic illness conducted under the auspices of the Welfare Council of New York City. In 1956, the Commission on Chronic Illiness, a national organization sponsored by four professional societies, ended its work and published its final report buttressed by detailed reports of conferences and studies conducted during the past seven years. It is indicative of the slow response of communities to changing health needs that many of the concepts enunciated in 1933 had to be re-enunciated and their application urged again in 1956.

The rate of change in community health services has accelerated in a few fields within the past decade. For example, in 1947, it was estimated that 10,000,000 individuals resided in hospital areas that had not a single acceptable general hospital bed; that figure had been reduced to 3,000,000 in 1955.

Special programs sponsored by national voluntary health agencies also have expanded at an accelerated rate in recent years. Practically all of these agencies are concerned with chronic diseases and many stress the organization of community services in their fields of interest. But this

does not mean that the pattern of community health services throughout the country has changed notably as a result of expanded voluntary activities.

Numerous other organizations also provide some types of health service at state and local levels. Many public welfare departments operate medical care programs. School departments may operate health services. Vocational rehabilitation agencies and state institutions also are involved.

Thus the patterns of community health service in the United States are extremely varied. Physicians and their patients in a large city may be presented with many specialized services in addition to the basic hospital and public health services, whereas those in smaller communities may have few or none of them. The more varied the choice, the more difficult it is for the physician, his patients, and the agencies to find their way through the maze of diffuse services. It is natural, therefore, that the move toward more efficient organization has taken place chiefly in metropolitan areas or at the state level.

The size and scope of the chronic illness problem may not be so overwhelming in smaller communities as in the great centers of population. Hence, these communities have an excellent opportunity to develop effective patterns of health service through the co-operation of all interested groups. The less costly types of service for long-term patierts—such as home care programs, housekeeping service, and follow-up—are especially adaptable to the needs and capacities of suburban areas, small towns, and rural communities.

Whatever the size of a community may be, the public and the physicians should be in the front rank of leaders, pressing for systematic study of needs and resources, and helping to devise ways and means of meeting community health needs.

The lack of community services is often the crux of the patient's dilemma. He may need a great variety of services which his physician cannot provide. Going without them may do more to change adversely the pattern of his disease than the doctor's best efforts can to change it for the better.

The physician himself may not be familiar with using the skills and abilities of other health personnel. He may not know how or where to find the services his patients need. In such situations, what the economists call "effective demand" will not be large enough. The needed community services will not be initiated, or if begun, will soon be abandoned. The way to express "effective demand" is for the physicians to join with patients and their families in recognizing the needs, using the community services and working for their improvement.

Summary and Conclusions

We have seen that the patterns of disease in the United States are changing. They are changing so rapidly that some diseases have disappeared, and others may disappear in the next two or three decades. General mortality and morbidity rates provide a gross estimate of change, but age-specific rates present a sharper view and show that the major life-saving has occurred in younger age groups. However, the possibilities of preventing or arresting some chronic diseases, chiefly affecting older people, have been increased as a result of medical research.

Advances in diagnostic, prophylactic, and therapeutic techniques enable the physician to deal with many diseases for which no effective methods were previously available. Each year, medical research is yielding new knowledge and techniques which will further accelerate the rate of change toward greater freedom from long-term disabling illness.

The changing patterns of disease also require different patterns of community health service. The current aim of the community should be to make available the full range of facilities and services which enable physicians to deal with the preventive, diagnostic, therapeutic, and restorative aspects of illness. In turn, it is the physician's responsibility to assist in the development of such services and to use them for the welfare of his patients.

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Marsilid and Pacatal in the Treatment of Depressive Schizophrenic Reactions

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MARSILID (iproniazid, henceforth abbreviated INZ), a new-type "psychic energizer," has been known to be effective in simple depressions, but contraindicated in the more frequent agitated depressions because of its stimulant action. The addition of Pacatal (mepazine), a non-flattening, mildly euphoric tranquilizer, itself effective in mild "reactive depressions," broadens the use of INZ to include the agitated type with both good immediate and long-term results. The immediate relief was necessary since such patients understandably demand fast relief of agitation, which the cumulative INZ action can't provide.

These drugs were used in 180 patients afflicted by moderately severe depressions. This series included both men and women, both on in-patient and out-patient service, over a period of sixteen months. The results are compared with those using four antidepressants, seven tranquilizers and electroshock therapy (EST) in 612 patients during a fifty-four-months period. Although such a combination could not always replace EST in severe depressions, these drugs can safely and conveniently be used on an out-patient basis. Reduction of dosage has not provoked a recurrence in fourteen months, a "curative" effect. Side-effects provided no problem and never required discontinuance of the medication. The energizing and tranquilizing actions are balanced for the best immediate effect, and rebalanced as needed later. The usual initial dose was 25 mg. of both three times a day. Although either drug could show a hypotensive effect, giving both at the same time hasn't caused any difficulty.

Similarly, forty-three patients suffering from acute schizophrenia were treated with fairly good results; the "balancing" of the two drugs was even more important here since INZ alone will increase combative behavior in some patients.

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General Considerations of Depression and Its Treatment

The incidence of tension has increased in the past fifty years proportionate to the increasingly multi-phasic demands of American culture and has been paralleled by increasing sales of sedatives and tranquilizing drugs. This is true for mild (neurotic or reactive) depressions, but not necessarily for severe ones. The latter require hospitalization, and mental hospital statistics have shown little change in incidence during the last 150 years. Depressions are an entirely different type of illness from that of uncomplicated anxiety; they can occur separately or together. There is no constant direct or inverse correlation between depression and anxiety.

TABLE I. TREATMENT OF DEPRESSIONS
Summary of 612 Cases

Depth of Depression	Treatment of Choice
Severe	Electrostimulation
Moderately Severe	E.S.T. or Marsilid-Pacatal, depending on urgency and economic factors.
Moderate	Marsilid-Pacatal. (Deprol is less effective)
Mild	Interviews and Marsilid-Pacatal or Deprol

The bulk of the treatment here discussed is of "agitated depressions," the most obvious type of which occurs in overly-conscientious, rigid individuals often in the involutional and post-involutional periods, exhibiting severe melancholia and marked symptoms of anxiety and tension, as shown by hand-wringing and floor-walking. About one-third were obviously psychotic and often showed delusions (somatic and/or paranoid), so that they could be mis-diagnosed as "middle life schizophrenics," a rare disease if it occurs at all. Since the rigid pre-morbid personality of these involutional persons is schizoid, such a diagnosis is all

too easy to make. However, such depressive psychoses have a prognosis at least 20 per cent greater than an equivalent schizophrenic illness. Nonagitated "depressions with psychomotor retardation" would theoretically be manic-depressive depressions carrying a good prognosis. Published series of such patients often show poorer results; since mild poorer-prognosis catatonic schizophrenics and such depressives are much alike, including both in a depression series reduces the number that improve. Since both can show delusions, social withdrawal, fair verbal communicativity and no obvious depressed affect, probably the best differential point between near-catatonics and withdrawn depressives is the self-deprecatory ideas of the latter patients.

It is usually true that patients with anxiety alone can be handled on an out-patient basis. Depressive reactions have a "cut-off point" at the "moderately severe level," below which it is imperative that patients be hospitalized because of their great agitation, lack of control of which leads to flight or suicide, and a demand for immediate symptomatic relief. Until such patients are 75 per cent improved, they won't continue any one type of medical care on their own, but instead look for a miracle cure—medical or otherwise.

The distinction between neurotic and psychotic depressions is an arbitrary one, since both lie on a continuum from a very mild reactive or neurotic depression at one end and a severe endogenous or psychotic depression at the other. "Neurotic" and "psychotic" have more concrete meanings than the other terms, but still blend together indistinguishably in a middle zone. Mild neurotic depressions are neurasthenic states, not true depressions—this is the layman's meaning for "depression," a term which cannot be medically delimited because of its wide popular usage.

This is an excellent example of the diagnostic use of INZ, in that psychotic depressions improve with INZ but not with Deprol, while mild neurotic depressions are the reverse.

The original Freudian trilogy of psychoenergetics, psychodynamics, and psychotopology offers an answer to the question as to whether these drugs really affect such an illness, or whether basic personality changes through interviews later are necessary. Drugs don't change psychodynamics but do change psychoenergetics. Psychotherapy is effective only for mild neurotic depressions; psychoanalysts agree that a real depression is an analytical contraindication.[14] Moderately severe psychotic depressives, although obviously disabled and mentally ill, are not "out of contact with social reality" in the sense that delusional and deteriorated schizophrenic patients are.

INZ-Pacatal Mechanism of Action.—At this time, it appears that INZ functions primarily as a monoamine oxidase inhibitor (hereafter MAOI), although it shows di-amine oxidase and probably diphosphorpyridine nucleotidase inhibition as well. Although over thirty theories (both pharmacologic and psychoanalytic) have been offered as explanations for the efficacy of electroconvulsive therapy (ECT) or EST, both pharmacologic and clinical results best support MAOI by EST as its primary mode of action. INZ potentiates norepinephrine; reserpine, acting hypothalamically, decreases norepinephrine, but if given after INZ, increases the INZ effect by epinephrine release. INZ given after reserpine shows no effects. The brain serotonin is quickly released by INZ, but clinical changes correlate with the slower norepinephrine release. Dexedrine has a direct cortical stimulating action (unlike INZ), which is not mediated by MAOI or affected by reserpine. Unlike many drugs which are effective in incomplete dosages, INZ does not produce clinical changes until 50 per cent MAOI is reached, which requires five to ten days. A single dose, therefore, cannot produce a therapeutic change. Although MAOI can be detected one month after INZ has been stopped, the per cent declines continuously during that period. Ultimately, a simple clinical test may be devised for percentage of MAOI, so that INZ could be given only as needed to maintain 50 per cent MAOI much as dicumarol is given now. At present, daily dosage is the only way to be sure of such levels. INZ indirectly prolongs the action of all amines, including drugs, so that Pacatal and Dexedrine given with it act like Spansules.

This pharmacologic INZ-reserpine antagonism, although helpful in understanding INZ effects, is not confirmed in humans, where the two drugs work together like they would separately. No similar work on pharmacologic interactions of INZ and phenothiazines has been published; however, from this clinical study, the only conclusion is that each drug effectively relieves half of a symptom-complex untouched by the other. Relief

of either the anxiety or depression alone still leaves the patient with enough symptoms so that he feels, at best, only slightly improved.

Results in Depressions

This study compares results in 684 consecutive depressed patients on the author's service at Mercywood Hospital from September 6, 1953, through November 20, 1958. No patient was included who was not followed for at least sixty days after improvement. All patients were given routine blood and liver function tests every fourteen days. Improvement was not judged from questionnaires but only from interviews by the author.

In this five-year study, it was found that only INZ with a tranquilizer or EST was effective in relieving agitated depressions. Tranquilizing drugs usually relieve anxiety, but do not reduce the depression which underlies it; such a drug may make the depression worse. Occasionally, when depression is much less than anxiety or secondary to it, as in a reactive depression, tranquilizers seem to improve the depression because the considerable relief of anxiety which they provide allows the release of the ego and its defenses from guarding the self; this is the mechanism of Deprol action.

EST in 842 patients since 1951 was 92 per cent effective in severe depressions with a median improvement time of twenty-two days, as compared with 84 per cent for INZ with Pacatal, 21 per cent with Deprol, and 23 per cent with Pacatal alone. Sixty-seven patients on INZ with EST showed one-third faster improvement than EST alone, cutting the EST required from an average of 8.4 to 5.4 treatments. INZ has been considered to be contraindicated in epilepsy; probably from this came the idea that INZ could not be combined with EST. INZ successfully carried several post-EST patients through relapses which previously would have required additional shock therapy. All EST's were done with a Reiter CW-47D Electrostimulator with IV Surital where possible complications were present. A later publication comparing an equally large ECT series will show that the 10 ma. EST current has been more effective than the 1000 ma. standard 110 v. AC sine wave electroconvulsive current, with less memory loss, less fear of treatment, and better control of respiration. The author has found EST safe and effective in many patients with orthopedic and cardiac conditions where ECT is ordinarily contraindicated.

Results with forty-three patients on Pacatal and Phenelzine (W-1544A), an INZ analogue under investigation with Warner-Chilcott, have been equal to INZ. Deaner (thirty-seven patients) has so far seemed to help only neurotic depressions, has greater efficacy than Deprol, but has produced considerable dizziness. Tofranil (imipramine Geigy, fourteen cases) appears to lie midway between Deaner and INZ. Thephorin, the only stimulating antihistaminic, is a weak MAOI and helps mild depressions, as well as avoiding oversedation in patients suffering from chronic allergies.

The effectiveness of INZ is best shown by its results in a sixty-four-year-old woman, so agitated initially that she required 1200 mg. of IM Sparine daily, where great symptomatic improvement, as well as marked decrease in the amount of tranquilizers needed, had occurred within eighteen days.

The first seventy-nine patients in this series were given 50 mg. t.i.d. This produced mild stimulation in many; most were agitated depressions, with severe insomnia and restlessness. INZ produces a goal-directed euphoria and irritability only when the patient is totally blocked from reaching a relevant goal, as distinguished from the constant non-goal directed irritability of the psychoneurotic. In this first group, for those both less depressed and less agitated, 25 mg. worked equally well. Occasionally, more Pacatal (up to 50 mg. q/3 hrs. while awake) than INZ had to be initially used to calm the patient, but in ninety-six of the 128, equal amounts of both drugs were used. The last 144 patients in the series received 75 mg. Marsilid; this change was made because mild side-effects, though minimal at 150 mg./day, are nearly absent at 75 mg. This change decreased improvement in depressions from 70 per cent to 66 per cent, with an extension of the median day for improvement from twenty-seven to 30.4. days. Dexedrine will often lift a depression temporarily, but at the cost of increasing the anxiety level.

Dexedrine-barbiturate combinations contain an excess of dexedrine and so produce mild stimulations. Either of these drugs is definitely habituating and so both are favorite choices of constitutional neurasthenics. INZ and dexedrine are closely related amines, close enough that JB-516, the fastest-acting INZ analogue, at high dosage levels functions just like dexedrine, and at lower levels,

like INZ. Dexedrine, itself not "curative" but palliative at best, when given with INZ reinforces and accelerates the latter; this was done only rarely in this series because of the resultant tension. Thora-dex is an improvement over dexedrine-barbiturates, and has been reported to be an "effective alternative in borderline EST candidates."[5] This may be true in reactive depressions, but the risk of dexedrine habituation in the neurasthenic patient is considerable. Ritalin, though of little help in psychotic depressions, parenterally is the most effective antagonist for tranquilizer overdosage, while its own dosage can literally be increased to ten times with safety.

Deprol (benactyzine-meprobamate) (sixty-three cases) was more effective in unclassified depressions (38 per cent improved) than any other tranquilizer except Pacatal, but of assistance only in reactive or neurotic (79 per cent improved) depressions or in nearly-recovered psychotic depressions. The author has witnessed five relapses from Deprol already, compared with none from INZ, but could not confirm Alexander's[2] finding of 57 per cent good results in his series of thirty-five patients. The discrepancy in results probably arises from Alexander's treating mild reactive depressions (neurasthenic patients), who would be relieved by the two mild tranquilizers in Deprol, whereas "depression" in most other series means a psychotic depression, which improves only with INZ or EST. INZ and Deprol were used together in a group of thirty-three patients exhibiting moderate depressions, on the borderline between neurotic and psychotic types, with excellent results. The initial adverse effects of each drug were counteracted by the other. Instead of having to decide what type of depression a borderline case is, and then deciding which drug to use, with this combination one can now give both together.

Pacatal has been given to 166 persons diagnosed as depressives, beginning six months before it was marketed and, over-all, it has shown the least flattening, the most euphoria, but in some patients, the most "dry mouth." Eleven per cent showed some dizziness and 14 per cent showed difficulty in visual accommodation. Even massive IV doses produced no "flattening," and hypnosis, but only a calm euphoria. Pacatal alone is an excellent drug for mild depresssions (83 per cent improvement) and produces immediate relief of anxiety. It was not able to bring a severe depression "back from the brink," but did relieve agitation in such patients. Since the first ten patients didn't get relief and the results from the last 156 cases were excellent, this shows again that even detailed studies of small groups have little value. Although aganulocytosis has been reported once with Pacatal, in this series there were no blood or liver function changes, and no clinical evidences of Pacatal toxicity.

Whenever Pacatal alone was not sufficient, the addition of Thorazine produced an excellent mutual synergism which can be "balanced" as with INZ—the more Thorazine, the greater the calming and flattening. Thorazine-Compazine provides still more calming and flattening, and is the strongest combination available. Both combinations do more than the component drugs alone. Tranquilizer Spansules, in contrast to Dexedrine Spansules given for stimulation, showed decreased mild side-effects and more even and effective therapeutic effects. The tranquilizing drugs (Serpasil, Thorazine, Sparine, Vesprin, Trilafon) and the barbiturates and non-barbiturate sedatives, although producing considerable or even complete relief of agitation, produced no change in the basic depression. When the "dry mouth" from Pacatal became severe enough to be objectionable, patients received Vesprin, 25 mg. t.i.d. This produced the good effects of Thorazine tablets but none of its side-effects.

Six cases of obvious jaundice occurred in 288 patients receiving Thorazine as well as forty-two cases of hypotension, fourteen of shock proportions. No jaundice has occurred in 154 patients who had Spansules only. Two hundred and eighty-one patients receiving reserpine showed considerable affective flattening, occasional nightmares, frequent rhinitis, nausea and constipation, as well as two unusual near-deaths when combined with EST. Twenty patients on Moderil showed both fewer good results as well as less side-effects than with reserpine. Sparine showed less flattening than chlorpromazine, an excellent parenteral calming effect, and only 3 per cent hypotension and 9 per cent dermatitis, but, over-all, only a 50 to 70 per cent improvement over Thorazine. Fourteen per cent of 109 patients on Trilafon complained of dizziness and obvious flattening, although less than with the above three drugs. Compazine is the "purest" tranquilizer, but has little central anti-psychotic action. These results, as well as those from the use of ten other tranquilizing

drugs and muscle-relaxants, will be published in greater detail in a later paper.

Rationale of Drug Treatment and Results in Schizophrenic Patients.—Among forty-three persons suffering acute schizophrenias, 65 per cent showed marked improvement, some improvement was noted in 26 per cent, and no change in 9 per cent. (Acute has the usual meaning of a sickness of less than three years.) Here dosages had to be entirely individualized (Chart 1), since these patients all show a varying amount of decreased ego strength. INZ alone given in depressive dosages produced asocial behavior in one-third of the patients (a severe acute catatonic, initially mute and stuporous, smashed two windows). The "up" and "down" effects had to be individually "balanced" every week, at least.

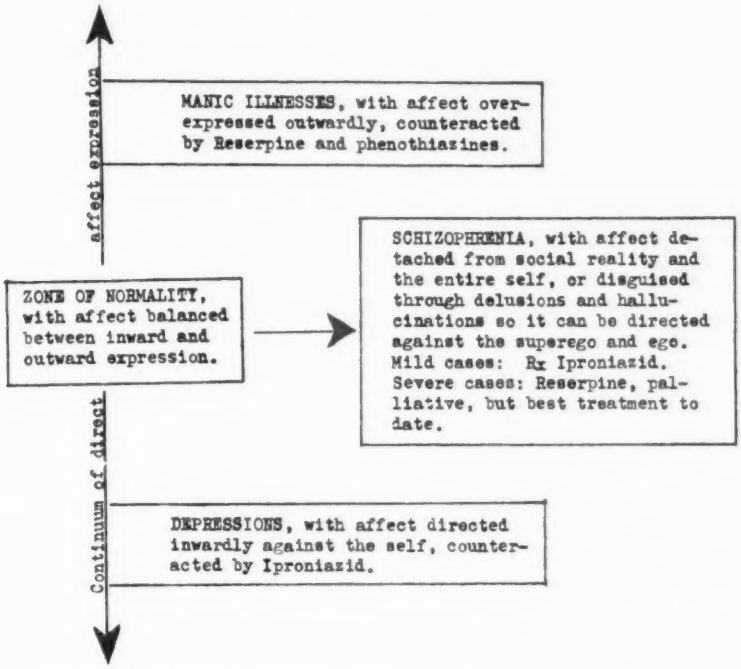

Chart 1. Manic-normal-depressed continuum, with schizophrenia at a tangent to the diseases of normal affect.

The recent New York Antidepressant Symposium contained eight papers on treatment of schizophrenia, with repeated examples of apparently contradictory results. The explanation given was that the illnesses among patients in the different series weren't comparable. It was agreed that all patients showed changes, but in one-half to one-third, not for the better.

The present series is unique not because of an increased improvement rate (since 65 per cent is common), but because the other 35 per cent didn't get worse. As with the depressives, this resulted from the "balancing" by Pacatal which relieved the increased tension in those who improved, but was even more important in limiting the antisocial behavior in those individuals who didn't. Although Thorazine, Compazine and Vesprin are stronger drugs, and occasionally were necessary, Pacatal produced the best results, since its lack of flattening and occasional euphoria immediately produced a sharp contrast, especially in initially "flat" or catatonic patients. INZ alone provides increased psychomotor activity and pushes the patient toward society (not necessarily toward social reality), but without Pacatal the INZ dosage had to be kept too low to avoid panic states and combativeness.

To say the "Era of Psychochemotherapeutics" was here with only the use of reserpine and Thorazine was premature since it is impossible to believe

that most illnesses could respond to only one type of drug. Most schizophrenic patients are primarily withdrawn and outwardly affectless, a condition certainly not the opposite of manic behavior, nor akin to a depression. Manias and depression do seem to be opposite poles of an affective continuum, with normality in the center; affect is overexpressed outwardly in manic individuals, and inwardly and self-directed in depressive patients. Schizophrenia, with its flattened affect, in this analogy could then only be a vector going off from normalcy, but at right-angles to the manic-depressive dipole (Chart 1).

Because of the INZ-reserpine pharmacologic neutralization, it is simple to insert both drugs in the above continuum, with INZ for depressions and reserpine for mania. Therapeutically, again schizophrenic patients don't fit on the continuum, since they respond to combinations of both drugs. From Chart I alone, INZ is the drug of choice for mild schizophrenia (i.e., those patients with greater ego strength), while reserpine is indicated for chronic cases. Although they become more co-operative under treatment (though often not in full contact with social reality), the mechanism —pharmacologic or otherwise—responsible for the development and deterioration in chronic schizophrenia, still is unknown, and not directly or inversely related to INZ effects. Chart 1 basically shows only that schizophrenia is still the unknown illness; the chart does serve as a convenient frame of reference, from which individual treatment can be planned.

Side-Effects and Contra-Indications

In this group of 243 patients, there were no alterations in liver function tests, no blood changes, and no clinically-observed side effects requiring discontinuance of the drugs. One patient showed a non-protein nitrogen of 58.5 mg. per cent and ++edema with 75 mg. INZ daily; 25 mg. INZ and 100 mg. Phenelzine daily showed no abnormalities and maintained clinical improvement. The recently-suggested serum transaminase tests for liver damage gave normal results throughout in this case. Both INZ and Pacatal in their higher initial doses produced mild hypotension in 20 per cent, which was easily managed with Wyamine 25 mg. t.i.d. The hypotensive effect of both drugs together was no greater than their individual effects. Although two patients on INZ alone showed blood pressure drops of 25 points systolic with dizziness, controlled with Wyamine, most of the patients treated with INZ alone, had less hypotension than is seen with phenothiazines. Although most patients with Parkinson's disease lose tremor control, regardless of antispasmodics, with the development of an agitated depression, three patients who didn't, retained this control while taking INZ and Parsidol. The mild "dry mouth," an atropine effect occurring in 32 per cent of patients (an inconvenience, but one most patients were able to adjust to) was not potentiated by the combination. Pacatal, like all phenothiazines, has definite atropine actions often useful in gastrointestinal complaints; INZ alone has a different mode of action but showed a "dry mouth" in 19 per cent of patients. However, it is not possible to say that all 19 per cent were due to INZ, since many agitated depressive patients complain of a dry month without any medication. Although the author gave INZ to three hospitalized patients with moderate portal cirrhosis and their alkaline phosphatases continued to improve (one initially was 23 Bodansky units) liver damage is still a general contraindication for INZ.

Because INZ shows such prolonged action, it is often given in a single daily dose, which may explain the minimal side-effects in this study, since all 243 received three divided doses to decrease transitory hypotension. It has been stated that INZ is an "addicting" drug; its MAOI produces increased circulating amines and with discontinuance of INZ, it was believed these would be immediately destroyed by MAO. Tuberculous patients showed hyperactivity, vertigo and headache with discontinuance of much higher doses.[7] In this study INZ was cut off suddenly in 201 patients without difficulty because (1) MAO recovers only gradually, and (2) Pacatal was often stopped later. In the other forty-two, INZ was gradually decreased because of the initial severity of the illness or the tenuousness of the recovery.

Patients who have received INZ number over 700,000, while the fatalities possibly relatable to it number only twenty, in many of which other more likely causes were also present. This is 1:25,000 maximum, far less than the 1:1000 ratio usually accepted for ECT. INZ, like cortisone and Thorazine before it, opens up an entirely new pharmacology; like the latter drugs, its therapeutic effects are so marked it should not be given to just any patient, especially without follow-up visits. These are necessary more because the therapeutic

dosage needs adjustment than because of possible side-effects. A new drug goes through three stages: Initially, it is over-used with miraculous results expected. When they don't appear it is almost discarded, only to regain selected usages for specific purposes. INZ has been abandoned by some who have never really used it, but has already been found by an increasing minority to produce totally new and useful results. Many reported "side-effects" have been vestiges of the illness being treated. Most others respond to 10 mg. B_6 t.i.d.; almost all depressive and schizophrenic patients need vitamin supplementation anyway. Ultimately another INZ analogue may replace it (just as the original cortisone and Thorazine have been partially replaced), but INZ-like drugs will always have unique uses in psychiatry.

Summary

Marsilid (INZ) effectively relieved 84 per cent of 180 acutely agitated depression patients in twenty-eight days, as compared with 92 per cent of 842 in twenty-two days with Reiter electrostimulations. Forty-three cases receiving the INZ analogue, Phenelzine, did equally well. Both drugs showed only mild and easily-controlled side-effects. Pacatal gave immediate relief of initial agitation, balanced possible INZ over-stimulation, itself produced some euphoria, and showed no "flattening" action. Pacatal-INZ did not show the universally-found symptomatic exacerbation in one-third of schizophrenic patients given INZ because the Pacatal balanced the INZ energizing to keep all patients within their weakened ego boundaries, so that two-thirds were much improved. INZ provides the most accurate appraisal of schizophrenic ego defenses, and sharpens differential diagnosis within depressions by separating psychotic from neurotic. These, or endogenous and reactive depressions, form opposite ends of a continuum on which Deprol relieves only mild neurotic depressions, an illness close to neurasthenia. Although manic and depressive illnesses form opposite poles of an affect continuum with normalcy between (each illness being relieved by one of the pharmacologic antagonists, reserpine and INZ), schizophrenia, which is helped by combinations of both drugs and fits in the continuum at right angles to the others, is still the "unknown illness." The non-addictive Marsilid, when given with EST, reduces by one-third the EST needed.

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*The brevity here is due to:

1. Participation in the Antidepressant Symposium, New York City, November, 1958, provided an exchange of data and theories to date, both published and not, but any one subject was a composite of many sources, few of them explicit.

2. These results, with sixteen months of data on INZ (marketed eighteen months), is apparently the only one to combine it continuously from the beginning with tranquilizers, and the only one at the Symposium where INZ, probably because of constant drug balancing possible only in a private hospital situation, didn't cause at least one-third of schizophrenic patients to get worse.

3. The 169 INZ publications relate only indirectly to this use, combined with Pacatal, in two acute diseases only. Of 207 Pacatal articles, none relate to its use with any stimulant.

Foreign Bodies of the Hand

By Alfred N. Gerein, M.D.,
and Joseph L. Posch, M.D.

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FOREIGN BODIES of the hand must be one of the commonest injuries suffered by man. Certainly almost everyone at some time during his lifetime can recall being the victim of such an injury. Yet, in spite of its frequency, very few papers are to be found in the literature on this subject.

Perhaps nowhere in the field of surgery have the laity excelled more and achieved such uniform success as in the removal of foreign bodies of the hand. Where the lay surgeon has failed at home, the physician has been successful in his office. However, occasionally, because all previous attempts have been unsuccessful, or, because of the seriousness of associated injuries, the patient is admitted to a hospital for removal of the hidden object.

In view of the sparseness in the literature and because of some very unusual foreign bodies of the hand encountered recently at the Grace Hospital, it was thought timely to review the foreign bodies of the hand admitted to the central unit from 1949 to 1958.

A foreign body of the hand is any substance introduced into the hand, accidently or intentionally, which may or may not give symptoms. These substances are either organic or inorganic, radiopaque or radiolucent.

From 1949 to 1958 there have been eighty-eight admissions to the Grace Central Hospital with foreign bodies of the hand. The right hand was involved in forty-eight instances; while the left hand was involved in forty. The youngest patient was two and one-half years of age, and the oldest patient was seventy-two years. There were fifty-six male and thirty-two female patients. The average hospital stay was 3.6 days.

Presented at the Annual Meeting of the Michigan Chapter of the American College of Surgeons, March 18, 1958.

From the Wayne State University Surgical Service, Grace Hospital, Detroit, Michigan.

TYPES OF FOREIGN BODIES

Steel	20
Glass	16
F. B. Granuloma	9
Wood	8
Cotton Suture	6
Silk Suture	5
Needle	5
B-B Shot	2
Bone	2
Cinder	2
F. B. Cyst	2
Plastic	1
Fish Scale	1
Grease	1
Nail	1
Thorn	1
Porcelain	1
Tatoo	1
Unknown	4
Total	88

The foreign bodies were distributed accordingly, in order of frequency (Chart 1):

1. Distal Phalanges	30
2. Proximal Phalanges	21
3. Palmar	18
4. Thenar Eminence	13
5. Middle Phalanges	5
6. Hypothenar Eminence	2
Total	89

The diagnosis of a foreign body of the hand can readily be made from the history, physical examination and x-ray study. This is particularly true when the object is radiopaque. A radiolucent object makes the diagnosis more difficult and then one must rely more on the history and physical examination.

Foreign bodies of the hand can be exceedingly difficult to locate at the time of surgery. It is not surprising, then, to find most of the papers on this subject devoted to the location of the foreign body at the time of surgery. Willis[13] has suggested outlining the object in three planes under fluoroscopy. He also suggests the use of an especially designed forcep which will light a filament when a metallic object is touched. The objections to such an instru-

ment are obvious. First, an instrument of this kind must be complicated and cumbersome to work with and second, less than half of the foreign bodies of the hand in this series are metallic. Recently, Willis[14] has suggested the use of a wire grid, divided into 1 cm. squares as an aid in localizing and removing foreign bodies. Leff[7] has advised locating the foreign body with hypodermic needles placed at right angles to one another with both needles touching and pinning down the object. This is done under fluoroscopy. An incision is then made along the direction of one of the needles down to the foreign body. Bunnell[3] advises x-rays in two planes, then under fluoroscopy outline the two ends of the foreign body with needles, and finally remove the agent by incising the skin at right angles to the long axis of the object.

We believe fluoroscopy should *not* be used in diagnosing, locating and removing foreign bodies since the danger of overexposure to the patient and the surgeon is too great and because fluoroscopy will not give information that cannot be obtained with a good x-ray in two planes. We believe all foreign bodies of the hand can be diagnosed, located and removed by obtaining good x-rays in two or three planes, wide exposure and dissection in a bloodless field.

On admission to the hospital, the patient is to have a complete history and physical examination; complete blood count and a urinalysis. X-rays are obtained in two or three planes. The patient is started on antibiotics if the injury is old or extensive. Tetanus antitoxin or tetanus toxoid must always be administered in this type of injury. The patient is taken to the operating room, where, under a general anesthetic or a brachial block the hand and arm are scrubbed with septisol and water for five minutes. Sterile drapes are applied to expose only the involved hand. A blood pressure cuff is applied around the upper arm separated from the skin by several layers of sheet wadding and held in place with roller gauze. After the arm is elevated for two minutes, the pressure in the cuff is raised to 250 to 300 mm. Hg. with the rubber tubing connecting the bulb and mannometer clamped immediately close to the blood pressure cuff. A correctly applied cuff will maintain a dry, bloodless field throughout the operative procedure. Good exposure in a bloodless field cannot be overemphasized. One should always explore for additional foreign bodies and associated injuries. The skin is dressed with a large bulky compression dressing and the hand and arm elevated in a sling.

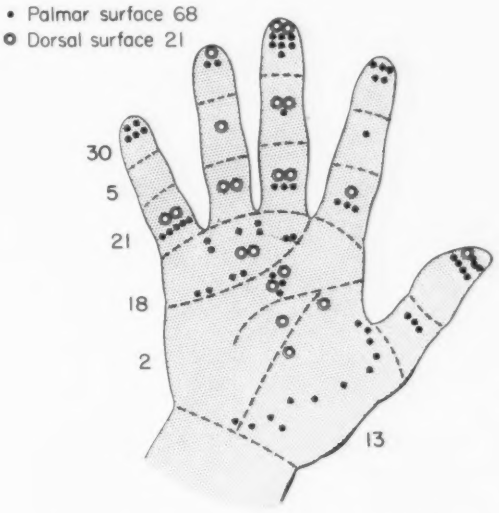

Chart 1. Distribution of foreign bodies in hand injuries among eighty-eight patients.

Report of Cases

Case 1.—In October, 1955, R.D., a white woman, aged thirty-three, had a diagnostic dilatation and curettage performed at another hospital where sodium pentothal was administered into a vein in her right wrist. The following day a lump appeared in the palm of her right hand. The right ring finger developed a progressive flexure contracture which finally measured 90° at the proximal interphalangeal joint. This digit was particularly painful at night, with the pain radiating into the elbow.

An x-ray of the hand was negative.

Sixteen months later the hand was explored in the usual manner under a general anesthetic. The tumor mass was found to enclose the sublimis and profundus tendons to the right ring finger. By careful blunt and sharp dissection in a bloodless field, this mass was completely removed. The postoperative course was uneventful and the patient went on to make a complete recovery.

Grossly, the specimen consisted of several pieces of tissue which are nodular, firm and light grey in color. It contains many small cystic areas filled with soft yellow material.

Microscopically, the specimen consists of a dense connective tissue with a small amount of attached adipose and areolar tissue. Within the substance of the fibrous tissue there is a multioculated granulomatous process. The areas are surrounded by fibrous and hyaline tissue. Superimposed upon the fibrous and hyaline tissue there is a moderate amount of fibrous repair with fibroblastic proliferation. This, in turn, is lined by epithelioid cells

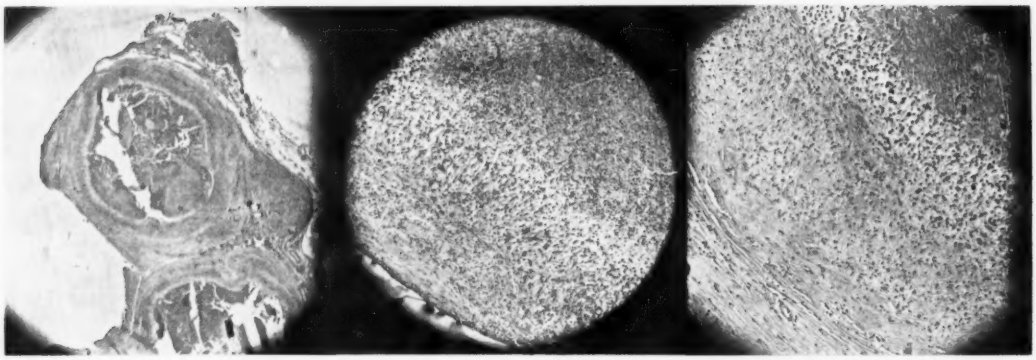

Fig. 1. *(Case 1, R. D.)* Low power view (4.5X) of foreign body granuloma caused by local reaction to Sodium Pentothal.

Fig. 2. *(Case 1, R. D.)* Medium power view (45X).

Fig. 3. *(Case 1, R. D.)* High power view (50X) of granuloma. (1) Granulomatous tissue surrounding monocytic proliferation. (2) Necrotic purulent material in center of granuloma.

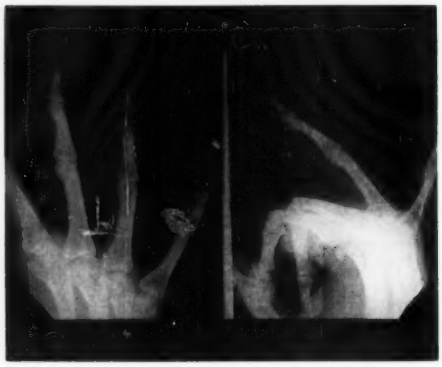

Fig. 4. *(Case 2, K. S.)* Foreign body seen on l eral view of right ring finger.

with a number of multinucleated giant cells. In the center of the areas, there is a necrotic tissue, remains of purulent material and remains of an amorphous-appearing foreign body. (Figs. 1 to 3).

Case 2.—K. S. is a thirty-four-year-old white woman who sustained a laceration in the palmer crease at the proximal interphalangeal joint of the right ring finger with a piece of glass. The laceration was treated at home and healed uneventfully. One week later the finger became swollen and tender. She consulted a physician who treated her with antibiotics. The injection failed to subside and the patient gradually developed a flexure contracture. The patient was then referred to a surgeon who advised conservative therapy. The contracture became worse and another physician was consulted who prescribed physical therapy, warm hand baths and injections of vitamin C. The flexure contracture improved but the patient continued to have pain in the involved digit especially on motion and when pressure was applied. This pain was shooting in nature and would often result in dropping objects.

Examination revealed tenderness on the volar aspect of the right ring finger at the proximal interphalangeal joint.

X-rays revealed the presence of a small radiopaque particle at the site of the injury in the finger. (Fig. 4.).

Three months later, under a general anesthetic, the right ring finger was explored and a small particle of glass was found to have penetrated the flexor digitorum profundus and was wedged in the flexor digitorum sublimis. A contracted band in the palm turned out to be a tenosynovitis, a reaction from the presence of the foreign body in the tendon.

Except for a moderate amount of postoperative pain the patient made an uneventful recovery.

Case 3.—In January, 1957, this 13-year-old white boy injured the middle finger, left hand, while tobogganing. A piece of wood was removed on the scene of the accident and the boy was taken to a hospital where he received an injection of tetanus toxoid and was told to soak the hand. An x-ray taken later showed a growth around the bone and the patient was advised to "let it go." In May, this finger was reinjured and again it was treated expectantly. Since then there has been intermittent swelling of the finger. Four days prior to consultation the finger became swollen and very painful.

Physical examination revealed a left middle finger swollen three times the normal size (Figs. 5 and 6). It was very edematous, tender and there was complete loss of motion except for the tip of the finger.

Under general anesthesia in a bloodless field, the left middle finger was explored. A small wooden splinter measuring ½ x ⅛ cm. was found and removed. A large amount of yellow fluid was present. A transverse incision was made in the distal transverse crease of the palm. More fluid and necrotic tissue was encountered. Large drains were inserted in the operative sites and the incisions closed. The postoperative course was uneventful.

Conclusions

1. Experience with foreign bodies of the hand during the past eight years is presented.

2. All foreign bodies of the hand requiring hospitalization should be x-rayed and removed in a bloodless field with good exposure.

3. Three cases of foreign bodies of the hand are presented.

4. Fluoroscopy should never be used in diagnosing, locating and removing foreign bodies of the hand.

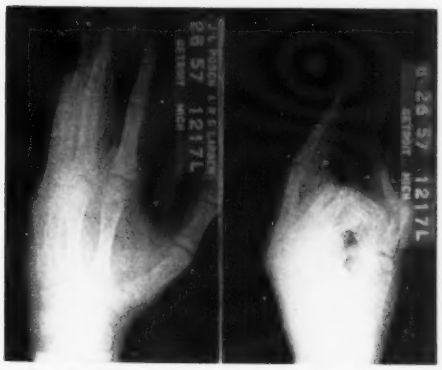

Fig. 5. *(Case 3)* Lateral and oblique views of left hand showing marked swelling of left middle finger from chronic tenosynovitis as result of piece of wood.

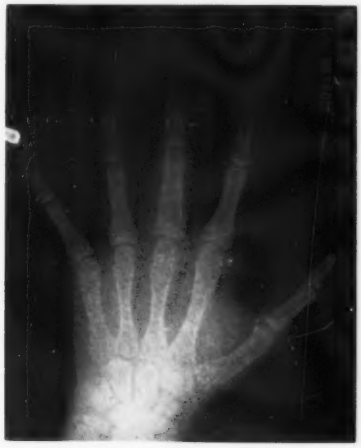

Fig. 6 *(Case 3)* Anterior-posterior view.

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LUNG CANCER

Two doctors at The University of Michigan Medical Center have been appointed by the American Cancer Society to committees which will make a three-year nationwide study of lung cancer.

Fred J. Hodges, M.D., professor of radiology and chairman of the Department of Radiology, was named to the project's co-ordinating committee and William O. Umiker, M.D., associate professor of pathology in the Medical School and chief of laboratories at Ann Arbor's Veterans Administration Hospital, will direct one of the project's four cytology centers. The research is a joint effort by the American Cancer Society and the Veterans Administration to halt lung cancer, which the Society calls "the most rapidly increasing form of malignant disease."

Management of the Swollen Arm Following Mastectomy

By Brock E. Brush, M.D., John H. Wylie, M.D.
Joseph Beninson, M.D., Melvin A. Block, M.D.
and Thomas J. Heldt, M.D.

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IT IS well recognized that William Stewart Halsted[5] was a pioneer in radical surgery of the breast. It is also true that he studied thoroughly the complications of radical breast surgery. His observations and opinions of lymphedema of the arm remain a classic to this day. He observed that in many instances, a year or more following the operation and without return of the disease, there would occur sudden or gradual swelling of the upper extremity. Halsted also studied patients with swelling of the arm in whom no surgery had been done, as well as those in whom late postoperative swelling accompanied a recurrence of the disease. In many instances when Halsted removed the axillary and supraclavicular glands, and resected a portion of the subclavian and axillary veins, no edema of the arm developed. He further observed that less difficulty occurred after skin grafting than following some plastic closures.

Halsted concluded that infection was "a very frequent if not indeed usually the overlying cause of swelling of the arms whose main lymphatic channels have been more or less blocked by operation." This infection he stated may be so mild as to escape the observation of even those intently on the lookout for it.

Veal[14] showed by phlebograms that angulation of the axillary vein often occurred and he believed that the venous return was the important factor in etiology, while Foley's[4] studies disputed this idea. Drury and Jones[2] demonstrated that edema was quite likely to follow a maintained increase in venous pressure, and Parker, Russo, and Darrow[11] found a correlation between the development of lymphedema and obstruction of the main venous channels. Lubb and Harkins[9] studied the total problem and found that excision of a segment of the axillary vein did not influence markedly the number of patients who developed edema, nor the severity of it. In their series, infection did not seem to be as important an etiologic factor as it had previously been considered to be.

Wakim, Martin, and Krusen[15] showed that chronic edema results in changes in the subcutaneous tissues toward induration, thickening, and fibrosis, and advocated early treatment of the edematous limb by centripetal rhythmic compression for one-half hour twice daily. They demonstrated that the edema and pain could be relieved, and that the color and consistency of the skin would become more normal. The basis of improvement, they felt, was a regeneration of lymphatic connections, re-establishment of collateral blood vessels, and development of new avenues for both lymph and blood.

Reichert[12] demonstrated the importance of the regenerating lymphatics in aiding the veins to overcome edema and restore a more normal state.

The role of postoperative roentgenotherapy has been discussed by Holman, McSwain, and Beal,[6] and in addition, the aspect of the presence of axillary metastases at the time of surgery.

One of the most distressing features of an edematous arm is the frequent recurrence of infection as demonstrated by chills, fever, and localized redness and pain. The relief from these episodes has been one of the most gratifying aspects of treatments which reduce the edema and return the arm to a more normal state.

Prevention

Since infection is one of the important causal factors of later trouble, the prevention of postoperative fluid collections is all important. The use of constant suction drainage for several days by the insertion of catheters at the conclusion of the operation, as advocated by MacDonald and Osman,[10] has resulted in much less infection and

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improved healing of the skin flaps. Fitts, Keuhnelian, Ravdin, and Schor[3] studied the etiology of arm edema following mastectomy and could find no *one* determining factor. The number of nodes removed, obesity, and necrosis of skin edges were studied as well as postoperative fever, fluid collection and infection. Prophylactic penicillin did not appear to be beneficial in reducing the incidence of edema.

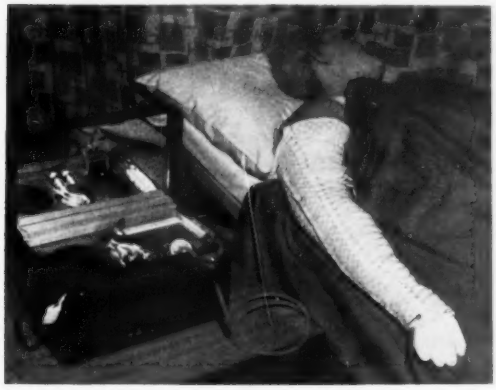

Fig. 1. The pump in use.

Early arm exercises leading to free and complete mobility of the arm and shoulder have long been stressed as an important step in the avoidance of later arm troubles.

A skin graft should be employed whenever there is any tightness of the skin flaps. The skin graft is much preferable to any plastic procedures on the skin, and an adequate skin graft will result in a much greater freedom of motion.[7] Arm exercises should be begun in the immediate postoperative period and continued for at least six months. They should be such as to promote free and complete mobility of the arm including reaching behind the head and reaching to a vertical position. While this often gives some discomfort in the early stages, the results of a determined exercise program are indeed worth the effort.

Elastic arm bandages for the first six months following the operation have been advocated and would seem to have merit. It has been shown that when the venous pressure gradually increases in the postoperative period, edema is likely to follow. The inconvenience of using these bandages is well repaid in later years. We ourselves have not used them in a preventive way.

The fixation of the skin flaps as advocated by Larsen and Hugan[8] should result in less fluid collection and better healing of the incision.

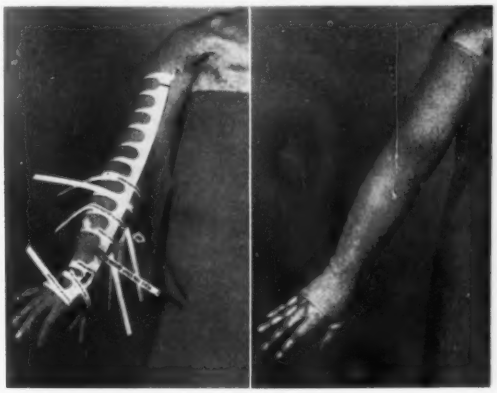

Fig. 2. *(left)* Measuring the arm for the elastic sleeve.

Fig. 3. *(right)* The custom-made pressure-gradient elastic sleeve.

Method

The apparatus which we have utilized is comprised of three features: (1) A sleeve of special fabric in the length of which are incorporated two inflatable rubber tubes of about 1-inch caliber. This sleeve is laced on so that it can be adjusted to an arm of any size. A non-elastic glove is used in conjunction with the sleeve to prevent swelling of the hand while the pump is in use (Fig. 1). (2) An especially constructed electrically operated air pump with a timing device permitting inflation of the rubber tubes for fifteen seconds and a collapsing rest of these tubes for forty-five seconds of every minute that the device is in operation; and (3) a custom-measured pressure-gradient sleeve to be worn when the pump is not in use.* The arm measurements for this sleeve are taken a few days after pumping when the arm has been reduced in size. (Figs. 2 and 3).

It has been our practice to begin the treatment with three to four days of rather intensive pumping. Most patients will tolerate the pump for periods of six to eight hours a day. As the arm diminishes in size the sleeve is tightened every two to three hours. When the arm has been reduced to near normal size the sleeve is laced less tightly.

*The sleeve and pump are supplied by the Jobst Institute, Toledo, Ohio.

After several days the arm is measured for an elastic sleeve. The pumping device is reapplied at intervals of a few days to a week or two and permitted to operate for several hours as needed to reduce accumulated swelling.

The apparatus, after an initial period of treatment and instruction, is used at home under medical supervision. Since our original report[1] in 1955, a new Jobst pump has been developed after a pilot model made by the Scientific Laboratory of the Ford Motor Company. The new pump weighs 15 pounds and can be transported easily.

The device must be used under the supervision of a physician. A thorough understanding of the objectives by the patient leads to better co-operation and thus a more satisfactory result. If there is evidence of local axillary and lung metastases we have relied more on the sleeve and less on the pump.

The following instructions are recommended for the use of each pump:

1. It must be used under medical supervision.
2. The use of a custom-made sleeve for periods when the pump is not in use is an essential part of the management.
3. Do not lace the sleeve too tightly at the beginning of the treatments.
4. Discontinue the pump if the patient experiences any significant distress in the arm.
5. Do not expect a large, long-swollen arm to be reduced by the first treatment.
6. Do not use the pump when there is evidence of lymphangitis.

Results

We have treated forty patients who had severe and disabling edema of the arm following radical mastectomy with heartening results. Significant relief has been obtained in all patients except two who were in the late stages of generalized cancer and did not tolerate the device. In many instances when the edema was long-standing (seven or eight years) the results were surprisingly good.

Illustrative Case Reports

Case 1.—A white woman, aged sixty-four, had a right radical mastectomy in 1956. Swelling of the arm started almost immediately after surgery. The swelling was so severe that the weight alone prevented her from using the arm. She was treated with the pump for eight days with very considerable improvement subjectively and a reduction in arm size of 2 to 3 inches. She now wears the elastic sleeve all the time and returns periodically for reapplication of the pumping sleeve for six to eight hours to further reduce the edema.

Case 2.—A white woman, aged sixty, had a radical left mastectomy in 1956. At the time of surgery there were axillary metastases and she was given postoperative radiotherapy. In the immediate postoperative period, healing of the wound was complicated by infection of the wound. Approximately six months following surgery, marked swelling of the arm and shoulder developed with severe pain in the tensely swollen arm. After five days' treatment with the pumping sleeve, the arm was reduced in size 3 inches and the pain had been relieved. She wears the elastic sleeve most of the time and is quite comfortable. The involved arm is now near normal in size and there is full range of motion.

Case 3.—A white woman, aged fifty-five, had a left radical mastectomy for carcinoma of the breast in 1942. Beginning six weeks following the surgery there was generalized lymphedema of the entire left arm which had gradually become worse over the years. In January 1956, she was treated with the pressure pump and sleeve, and the swelling in the arm and forearm were reduced 3 to 4 inches. She continued to use the pump at home with gradually diminishing frequency and presently uses it only about once a month. She wears the sleeve every day. She writes, "I have absolutely no pain or heaviness. . . ."

Case 4.—A white woman, aged forty-five, had a left radical mastectomy in July 1948, and a right radical mastectomy in May 1950. There were positive nodes, and radiotherapy followed this surgery. She developed progressive swelling of the left arm and was unable to work because of it. In December 1953, she was treated with the pump and sleeve—the arm returned to near normal size, and she returned to work. She was given hormone therapy and further radiotherapy, and was able to use the arm and keep working until two months before her death in July 1955.

Discussion

Starling[13] established the fact that massage and exercise greatly increase the flow of lymph, but other factors of lymph flow remain somewhat obscure even though they have been studied for many years. Elevation, massage, brachial plexus block and other forms of treatment have been of benefit, but the device here described has been more satisfactory in our hands.

The exuberant comments of the patients who had suffered from severe edema for many years have been very gratifying. The relief from the discomfort and pain has been the result which most patients have stressed. The distress from a huge swollen arm results from the increased weight, sensory disturbances in the skin, stiffness,

and reduced mobility of the whole extremity including the hand and fingers. The pain in most instances has seemed to be due to the tension in the arm as exhibited by the hardness. The relief of pain occurs as the arm softens and the tension is decreased. It soon became evident that a great deal of relief was obtained when the arm was only partially reduced in size.

As has been previously described the return of the arm to a more normal state has resulted in a greatly decreased incidence in attacks of lymphangitis and cellulitis.

The relief of edema has enabled many patients to wear clothes without expensive alterations. The boost to morale has been most interesting to watch in many instances. The relief from the embarrassment of a swollen arm has resulted in many of these patients again leading a normal life. They have resumed social functions and have returned to their former place in community life.

The fear of deformity has been a factor deterring some patients from accepting the ideal procedure for cancer of the breast. This fear of disability can be minimized if edema can be successfully treated.

Following the initial period of treatment and instruction, additional treatments are carried out in the home. The need for further use of the pump, after the initial course of treatment, has been quite variable. One patient uses the pump for a few hours every three weeks while several other patients require only their elastic sleeve. For the most part, the sleeves are removed at night and put on each morning. Several patients, after a few months of treatment, have discontinued even the use of the sleeve. With ordinary use the sleeves remain in good condition for three to four months. The importance of a custom-measured sleeve cannot be overemphasized.

Conclusions

1. Edema of the arm may be successfully treated by means of an appliance to reduce the swelling plus the use of a custom-fitted sleeve when the pump is not in use or no longer needed.

2. The pain, discomfort, and swelling are relieved.

3. The incidence of chills, fever, and localized infection is greatly diminished.

4. Strict adherence to instructions is important and medical supervision of the device is imperative.

5. Swollen arm, a troublesome sequela of radical breast surgery, need not be tolerated.

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Fractures in Children

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THE concept that diseases of children differ from those afflicting adults would lead to the assumption that it's the disease and not the patient that makes this so. It has been pointed out by men concerned with surgical problems in the child,[4] that the child is not merely a miniature edition of the man, nor an operation merely a scaled-down version of a procedure that could be done on an adult. Anatomically, a fractured bone in a child should be no different than that of a mature person. However, such is not the case. Not only may the types of fractures vary, the treatment and the prognosis may often be dissimilar from those existing in the adult. The general principles to be discussed are by no means new or original. They have evolved over a period of years from the experience of men concerned with fractures in children. Blount,[1] in particular, has recorded the highlights of his experiences in a magnificent book published in 1954, from which the major portion of this paper is derived.

It soon becomes apparent to the surgeon that it is not always possible to obtain anatomic reduction of a fracture. The problem, then, is simply, to know what is acceptable and what is not, in terms of functional results, not only in the near future but also in the final result when the little patient has reached maturity.

The purpose of this paper, then, is to outline the general rules which will guide the physician in his treatment. Obviously, it would be impossible to consider fractures individually. The discussion will be regional, except in those cases where special techniques are required.

Hand

The incidence of fractures of the hand is low (8 per cent). When they do occur, they are usually open, and as such, require the same treatment as any hand injury demands.

As a general rule, merely placing the hand in the position of function will reduce the fracture. There are three exceptions, the three B's: Bennett's, Boxer's and Baseball.

Bennett's is best treated by skeletal traction through the distal phalanx. *Boxer's* should be reduced and the three joints held flexed, or by intramedullary Kirschner wires. *Baseball* is held by flexing the proximal and hyperextending the distal interphalangeal joints after reduction.

Forearm and Wrist

Over 75 per cent involve the distal one-third of the forearm and are either torus fractures or complete, then with dorsal displacement. The former are best left untreated; the latter are easily reduced and held in sugar-tong plaster splints in neutral position. Disruption of the epiphyses should be accurately reduced and x-rayed at intervals for at least eighteen months to determine epiphyseal activity. In the mid-shaft, greenstick fractures may be left unreduced if the angulation is not excessive. Otherwise, the fracture must be completed manually and held in supination to prevent permanent bowing. Fractures in the proximal one-third are troublesome, especially if both bones are involved. After reduction, the forearm is immobilized with the hand fully pronated.

Bayonet apposition is acceptable; angulation is not, nor are rotational discrepancies. Wedging a cast invites disaster from pressure. In severe cases, traction may be required. Open reduction rarely is indicated.

Elbow

Supracondylar fractures account for 60 per cent of elbow injuries. Essentially, they are surgical emergencies. Two distinct types exist: 99 per cent are of the extension variety with posterior displacement of the fragment. One per cent are flexion and are anteriorly displaced.

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Immediate treatment is by manual reduction and maintained in a flexed position, except, of course, in the flexion type in which case the arm is extended. If there is swelling, Dunlap traction is necessary. In a week or so, a collar and cuff or posterior mold may be applied.

Principles to be observed are correct lateral or medial displacement; avoid rotational discrepancies; bayonet apposition is acceptable; open reduction produces nice x-rays but poor functional results; rather than repeated manipulations, try traction; prognosis should be guarded in all fractures. Even if Volkmann's ischemia has been avoided, the reduction is perfect and functional results are excellent, a reversal of the carrying angle may result from the acceleration of growth of the lateral condyle, provide for swelling; therefore, avoid circular plaster initially.

Fractures of the lateral condyle: If displacement is minimal, hold the elbow in flexion and supination. If displacement is marked, open reduction is necessary. Otherwise, serious deformity is inevitable.

Fractures of the medial condyle: Again, if the displacement is a few millimeters or less, brief immobilization is all that is needed. With displacement or ulnar nerve symptoms, open reduction is mandatory.

"T" fractures common in adults are rare in children. Traction is the safest treatment. Closed reduction by manipulation is usually unsuccessful. Open reductions are not only difficult to perform but the results are disappointing.

Fractures of the neck of the radius. Closed reduction is successful if the displacement is 60° or less. If the displacement is near 90° open reduction should be done with replacement of the bone. *Never* remove the radial head in a child.

Olecranon fractures are rare in children.

Shoulder

Fractures of the clavicle are the commonest injury in children—even in the newborn. At birth, angulation and overriding may be ignored. Flannel figure-of-eight dressing for ten days is adequate; from birth to six years, the same treatment for three weeks; ages six to 12, reduce the fracture and hold for five weeks.

The prognosis is uniformly good and the alarming bump of callous obliterates rapidly. There is no justification for open reduction.

Humerus

Epiphyseal disruptions, if displaced, must be accurately reduced and held in an abduction brace or shoulder spica. Undisplaced injuries respond well to sling and swathe. The older the child, the more accurate the reduction should be. Fractures of the anatomic or surgical neck of the humerus are treated by traction when grossly displaced. Otherwise, a hanging cast is sufficient. Fractures of the shaft of the humerus in infants responds well to Valpeau dressing. Side to side apposition is acceptable.[3] In the older child, a hanging cast works well. Radial nerve damage is rare.

Femur

Seventy per cent occur in the middle one-third. Traction, followed by a hip spica, usually produces good results.[5] Rotation and angulation must be avoided. Overlapping is desirable. In the very young, overhead or Bryant traction is adequate. Beware of ischemia of the legs, a condition analogous with Volkmann's ischemia in the forearm.

Russell's or balanced traction in the older child is satisfactory with adhesive traction. Skeletal traction is rarely needed.

Open reduction is not advisable.[2]

Fractures of the distal end of the femur near or involving the epiphysis are analagous to supracondylar fractures of the elbow and should be treated in a like manner.

Knee and Leg

Patellar fractures, if undisplaced, require only aspiration of the joint and a plaster cylinder. If the extensor mechanism is disrupted operative repair is essential. Comminuted fractures are rare and are really misinterpretations of bipartite patellae. Patellectomy is to be condemned.

Shaft of tibia and fibula: All should be treated by closed methods. Spiral fractures in adults invariably require open operations; in children, never.

Disruptions of distal tibial epiphysis, with or without fracture of fibula need only closed reduction and cast. Use the same precautions as with any epiphyseal injury.

Malleolar fractures do not occur in young children. In the older ones, conservative treatment is sufficient.

Fractures of the foot are rare and the recuperative power of a child's foot is tremendous. A compression dressing or a short cast is adequate to manage isolated fractures.

Blount's General Principles

The fracture should not be grossly angulated or rotated. Rotational deformities are permanent, therefore inexcusable. Impacted fractures can be immobilized without reduction. Grossly angulated greenstick fractures, especially near the center of long bones, must be completely fractured through. Fractures near joints are best treated by manipulative reduction and cast. Exceptions are condylar fractures of the elbow and a few rare articular fractures. These must be opened. Epiphyseal fractures are best treated by closed methods, except the proximal femur. Internal fixation devices are usually not required. If pins or wires are used, provisions should be made for their removal later. Open reductions are difficult to justify. Nonunion by closed methods is rare. Permanent stiffness of joints due to immobilization is unknown. Physiotherapy is almost never necessary. There is no place for manipulation of joints under anesthesia. A hands off policy and the tincture of time is the medicine of choice.

Conclusion

The burden of responsibility, then, falls on the shoulders of those who undertake the treatment of fractures in children, for they must carefully follow each case until they are absolutely sure that no late sequallae develop. Legally, the statute of limitations is two years after the patient has attained the age of twenty-one.

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WILD ANIMALS AND DISEASE

Only rarely is a wild animal found completely free of parasites, some of which can be harmful to both man and domestic animals.

Prof. A. B. Cowan (wildlife management), University of Michigan, and an assistant are attempting to follow the population cycles of snowshoe hares and ruffed grouse to determine what role parasites and diseases play in causing periodic population declines.

The hares and grouse reach their period of abundance on an average of every nine to ten years, with marked declines following the highs.

No one has been able to explain satisfactorily, however, the causes of the declines.

The plan of attack of Professor Cowan: "We will try to follow through at least one complete population cycle of both the hare and grouse in an attempt to find whether there is a correlation between population and parasites and diseases.

"Should we find that some of these organisms are causing losses, we may be able to come to understand their relationship to the host and its environment. Then, and only then, can we look for management practices which may eliminate or circumvent the losses we now experience."

The research will also include seeking a better understanding of dense populations: "When a species of animal becomes too dense it is most frequently trimmed by some natural phenomenon."

Hunters needn't worry too much about eating grouse killed in the field, however. "None of the species of parasites detected on or in ruffed grouse have been found in edible parts. But it is interesting to note that as many as twenty-one different kinds have been found —four kinds on the outside and seventeen inside."

Most of the animals studied thus far have been collected near Camp Filbert Roth, the University of Michigan School of Natural Resources Forestry Camp in the Upper Peninsula's Ottawa National Forest.

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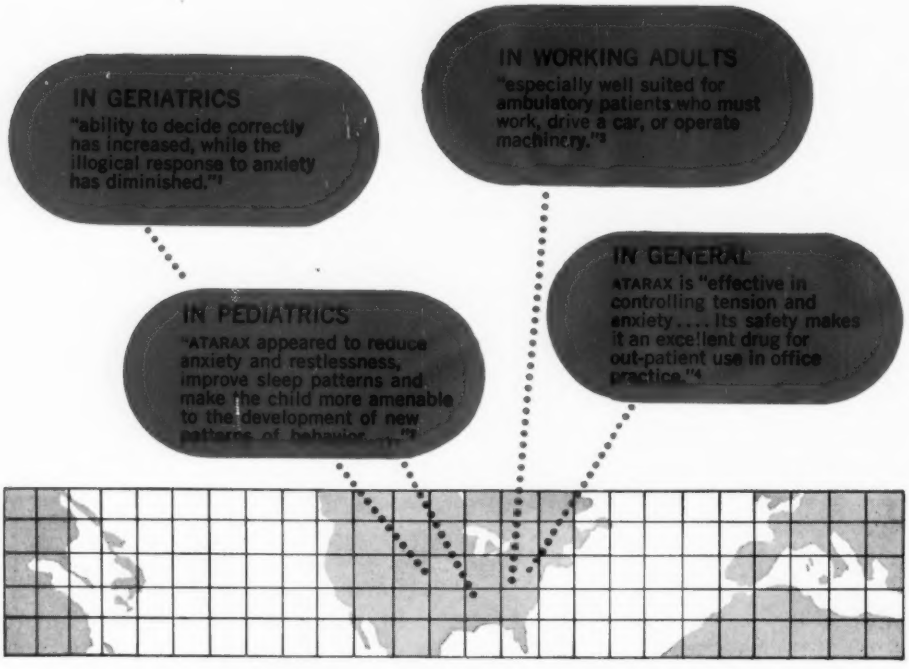

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Advances in Knowledge of the Physiology of Wound Healing

By John B. Hartzell, M.D.,
and Carlos Mota, M.D.
Detroit, Michigan

IN PREHISTORIC times, long before the development of civilization man did not live in a Garden of Eden,[24] but in a hostile world where he was forced to fight for his very existence. He was ignorant but being intelligent, he survived and developed and in the process learned to look after himself. Well-healed fractured bones which have come to us from The Stone Age, give mute evidence that he knew something about maintaining apposition with the splint.

A glance at medicine as practiced among the primitive and savage peoples of more recent times affords insight as to how a prehistoric family lived. They were in constant fear of attack by someone stronger, hence they banded together as tribes for the sake of safety. In a group of this kind, there was usually some individual who was a little shrewder (or perhaps a little wiser) than the rest, and in times of trouble others turned to him for advice. He became a sort of priest. Depending upon his influence with the tribe, his advice and aid were sought on many subjects. He was supposed to be able to intercede with the spirits, who, if worshipped properly could bring victory in battle, rain in periods of drought, and sunshine in times of flood. The sick and injured also sought his aid, and he became a medicine man. His armamentarium consisted mostly of incantations and magic, a primitive type of psychotherapy.[12] He frightened the evil spirits away. However, he did practice surgery of sorts. There is evidence that he knew something about dealing with wounds, stopping hemorrhage, removing foreign material, and the application of splints and rest.

And so, by observation and experience, man's knowledge grew. That this growth, through the eons of time, was slow and painful is evidenced by the degree to which the healing art had advanced at the time that man's first recorded history had its birth.

The earliest organized society of which we have record is Egypt of 4000 to 5000 years ago. The priests constituted a numerous and influential body,[27] and most of them were also physicians. The treatment for various diseases was prescribed by law, and the physician was not allowed to alter the mode of cure until after the fourth day of the patient's illness. If he altered the prescribed cure sooner, and the patient did not get well, the physician was punished. According to the Greek historian Herodotus, they developed specialists for different parts of the body—some for the eyes, the head, the teeth, the belly, and there were some who cut for bladder stones.

The Babylonians of 2000 B.C. had no physicians,[27] and it was their custom to expose their sick in the market place, in order that those who had been similarly afflicted, might communicate to them the means of cure. The ancient Persians obtained their physicians from Egypt.[27]

In India, about 1000 B.C., there existed an advanced civilization.[30] There is some evidence to support the belief that the ancient Egyptians derived their first knowledge from India. The science of Life or Medicine became a recognized profession, but, as with all early peoples, the healing science was closely connected with theology. Surgery at this time consisted of the removal of foreign bodies, opening abscesses, removing the dead child from its mother, the healing of wounds, the application of escharotics and the use of fire in the treatment of various inflammatory processes. The Hindu physician, Susruta, cut for stones and seems to have been one of the earliest to do plastic surgery.[7] Restorative operations on the nose and ears were frequent because of the common practice of mutilation at the

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hands of despotic governors. It is also recorded that the early Hindu physicians succeeded in suturing the intestine.[7]

The ancient Hebrews did some surgery, but they are best known for the development of a rational code of hygiene. The priests, in addition to their religious duties, were the health officers.

It remained for the Greeks, however, to establish the earliest principles of scientific medicine. While the Egyptians, the Babylonians, the Hindus, and the Jews were beginning to scratch the surface of medical practice, Greek medicine was beginning to show signs of progress. They developed a great center of learning on the Island of Cos, off the coast of Asia Minor.[27] The priests were known as Aesclepians. They were the physicians, their temples became health resorts, and it was there that the first school of scientific medicine was established. The young man destined for the profession underwent preparatory education from the age of seventeen to twenty. He then continued his studies for four more years, much as we do now.

Sometime in the neighborhood of 500 B.C., the priesthood and the practice of medicine became separate professions; medicine was taken out of the temple, and became a science. About this time (and on the Island of Cos) Hippocrates was born in 460 B.C.[27] His father was a member of the sect or guild known as the Aesclepiadae of the University of Cos, and from him Hippocrates received much of his early education. He studied the sick patient, took clinical notes, and kept case histories. He founded the art of diagnosis and prognosis. Hippocrates, his son and his grandson, wrote many volumes on medical and surgical subjects. These books, based on observation of patients, described wounds of various parts of the body, and the complications of pyemia, tetanus, erysipelas, also those following labor. The necessity of trephining in wounds of the skull, where splinters of bone were present, was recognized. The treatment of variocele, hernia, dislocations and fractures, and tumors of the testicle was described.

Perhaps his most important contribution was his recognition of the fact that the body possessed a certain power to react against disease and injury, and also to recover from the effects produced by them.[7]

Three hundred years after the death of Hippocrates, following the Roman conquest, Grecian medicine was taken to Rome, when for a time it flourished.[12] But, with the passing of Galen, the last of the great Roman physicians, and the Fall of Rome, medicine ceased to exist as a science.[12] Through all these years of the Medieval period, the bright spots of progress were few. Rhazes[7] of Bagdad became the first Arab to use logic instead of magic. He taught that fever did not represent a disease, but rather that it was nature working to bring about a solution of the disease. In the thirteenth century, two are worthy of mention—Theodoric, the surgeon Bishop of Cervia, and Henry de Mondville—who emphasized the importance of cleanliness and washing of wounds and the removal of all foreign matter. Theodoric maintained that wounds could be closed and would heal without suppuration if properly cared for.[12]

With the coming of the Renaissance, scientific thought and reason again became important to medicine. Paracelsus, the Swiss physician (1493-1541), taught that every surgeon should know that it is not he, but nature, that heals wounds. To use his own words: "For you should know by their nature, the tissues—contain within themselves an inborn balsam which heals wounds."[7]

Suturing of wounds was a recognized art in the ancient civilizations of Egypt and Assyria in at least 2000 B.C. It is recorded that Jewish Rabbis commonly sutured wounds and freshened their edges to get union as early as 200 B.C.[10] The ligature is mentioned in early Greek and Arabian writings. To Ambrose Paré (1510-1590), however, goes the credit for rediscovering the ligature. He lived during the period of the almost endless French wars, and obtained vast experience. One day on the battlefield, he ran out of boiling oil, and substituted the ligature for the control of hemorrhage.[22] His dictum has come down through the centuries—"I dressed him, God cured him." Harvey's discovery of the circulation of the blood emphasized the logic of Paré's ligature.

Three hundred years were to pass before two events occurred which changed surgery and the care of wounds from a ghastly nightmare to what was shortly to become modern scientific care. The first use of ether by Crawford Long in 1842, and later by Morton in 1847, and the researches of Joseph Lister about 1865, based on the work of Pasteur in the use of antiseptics, mark the beginning of what we know today as aseptic surgery. These antiseptics, carbolic acid 1-20, and later bichloride of mercury, enabled Lister

to operate in a clean, uncontaminated field. It had previously been the practice to tie off blood vessels with silk or flax, leaving the ends long (much as Paré had done 300 years before). These protruding ligatures allowed for the escape of pus, and also the sloughed portion of the blood vessel and the knot. Lister showed that in the aseptic wound, using antiseptic ligatures, the knots could remain buried.[6] In such a wound, for the first time there was reasonable expectation that primary healing could be obtained. Lister was also the first to use dressings sterilized by heat.[6] Drainage tubes then came into use. These first were made of decalcified bone and were usually absorbed in about ten days.[21] Within four or five years, surgeons began to use rubber as drainage material.[22]

So, with the advent of anaesthesia and the beginnings of antiseptic, or rather aseptic surgery, modern surgery was born. It did not immediately appear in the form in which we know it today. Methods were still to be learned. Bilroth contributed much to abdominal surgery; Von Bergman to the care of head injuries.

It remained for Williams Stewart Halsted to study and evaluate the process of tissue repair and to enumerate the principles in the care of wounds. He taught that the body possessed great natural healing powers, and stressed the importance of not interfering with the healing process, by the application of meticulous surgical technique. He emphasized the importance of hemostasis, the avoidance of traumatizing the tissues by rough handling, or with strong antiseptics, and he advocated the use of fine suture material in preference to the heavy material formerly used as ligatures.[19] These teachings are regarded as even more important today than they were fifty years ago.

With the principles of surgery becoming outlined and established, surgical centers developed in Europe and North America, and an ever-increasing number of operations were performed yearly. There were large numbers of complications—not like the pre-Lister era when hospital gangrene, pyemia, erysipelas and tetanus, following simple amputations resulted in a nearly 50 per cent mortality—but still far higher than today. Once surgeons had become accustomed to seeing wounds heal by first intention, they began to seek reasons for delayed healing, disruption and failure to heal, and for additional safeguards against infection, and ways to insure normal healing in a larger percentage of cases. With the gradual increase in knowledge of the fundamental physiologic and histologic changes which occur in the healing process, many of these problems have been solved.

Space does not allow an adequate discussion regarding the amount of investigative work which has been done on the subject of wound healing. Suffice to say, the gross and microscopic changes which take place in the wound during the process of repair, are now well-known.

The response of the body to injury is a biologic phenomenon. The healing of a wound is the effort made by the body to live. In the cleanly incised, surgically closed wound, in the presence of hemostasis and the absence of infection or other complicating factors, the reparative process proceeds at a given rate.[15]

The first phase has been spoken of as the lag period. During this period, which lasts roughly about four days, the activity within the wound is principally confined to getting ready for the actual process of repair.[28] The non-viable material is removed by autolysis, heterolysis and phagocytosis. The tensile strength is no greater than the sutures or the tissues into which the sutures have been placed. There is agglutination of the wound by the surface fibrin. The presence of freshly damaged tissue cells in the wound is thought to give rise to a substance which stimulates the ameboid movement of new connective tissue cells into the wound. These new cells are derived, not from the adjacent tissues in the borders of the wound, but from wandering connective tissue cells, fibroblasts, polyblasts and histocytes. The exact nature of this stimulating substance is unknown. The presence of certain essential sulfhydryl-containing amino acids may prove to be the initiating factor.[18]

More recently it has been shown that in the early stages of repair, up to the fifth day, there is a marked concentration of hexosamine (sugar and amino acid) in the wound. Reticular material begins to appear by the fifth or sixth day, and since reticulin is a developmental stage of collagen and since hexosamine disappears as collagen is formed, Dunphy and his associates believe the lag phase should better be termed "the productive phase"—since it is in this period that "sugars, muco-proteins and the soluble precursors of collagen appear in the wound."[3]

There now occurs an increase in the rate of

the mitotic proliferation of these invading fibroblasts. The maturation of the fibroblasts then occurs. They elongate along the fibrils and unite the wound surfaces. Collagen fibres then develop from the elongated fibroblasts and there is a rapid increase in the tensile strength of the wound.[28]

Little can be done to speed normal healing—but there are many factors which interfere with the healing process. These are classified into two groups, local and general. The local factors act upon the wound itself, and the tissues adjacent to the wound, while the general factors influence wound healing by acting on the body as a whole.

Infection is an important local factor. It must be assumed that even under ideal aseptic conditions all wounds are to some extent contaminated. It is the virulence of the bacteria and their pathogencity that counts. Mason divides wound contamination into two categories:[19] bacteria from their natural habitats and from human sources.

Bacteria from their natural habitats gain admission to the wound at the time of injury from objects not recently contaminated from human sources. Most traumatic wounds are so-contaminated, and these bacteria are in a relatively dormant state and are not accustomed to living in the body. The process of adjusting themselves to their new environment constitutes the period of contamination, and may be from six to eight hours. A wound seen prior to the so-called eight-hour deadline, if mechanically cleansed by gentle washing and irrigation and by removal of foreign bodies and dead and traumatized tissue, may usually be closed without resulting infection. After eight hours these bacteria will have begun to multiply and invade the organism, and then the wound must be considered as infected. Here the treatment must necessarily differ, and closure must be deferred, until the infection is brought under control by careful debridement, moist dressings and antibiotics.

Now to consider contamination by bacteria from human sources, these organisms are accustomed to living in the body, are immune to human antibodies, and are therefore able to produce a virulent infection in two to three hours. The human bite is the prize example. These wounds must be considered as infected from the start, because they are rarely seen soon enough to permit of proper cleansing.

Another local factor interfering with wound healing is the presence of dead or devitalized tissue which constitutes favorable media for bacterial growth and must be absorbed or extruded before healing can take place. Tissue injury is seen most frequently in wounds from trauma, but it may also result from rough handling of the tissues by the surgeon.

The presence of foreign material delays healing and is a source of infection. Small pieces of steel are safely left in a wound, but wood or clothing is always a source of infection and must be removed.

Here some further mention must be made of suture material. It is a foreign body and the size and type of material used definitely affect the progress of wound healing. In general, the finer the material the better. Heavy material makes large knots which are difficult to absorb or encapsulate. Of the absorable materials, catgut is the most widely used. The term catgut came from the word "ketgut or "ketstring" meaning a fiddle string. The ket was a small fiddle or violin. While gut was widely used for centuries, Dr. Philip Syng Physic (1768-1837) was the first to realize that it would be absorbed and proved this by animal experimentation.[10] Present-day catgut is made from the jejunum of healthy sheep.

Of the non-absorbable ligatures, the most commonly used are silk, cotton, nylon and steel wire. All of these produce less reaction than catgut, and, in the following order silk, cotton, nylon, tantalum and steel wire produce the least reaction.[13] The fact that catgut acts as an irritant and must be absorbed inhibits wound healing. Silk and cotton have the disadvantage that, if infection is present, the interstices of the fibres harbor bacteria and not infrequently the infected stitch must be removed.

In 1911, Harvey Cushing devised a metal clip made from silver.[26] These were clamped on blood vessels to control bleeding in operations on the brain. In 1942, tantalum clips came into almost universal use in brain surgery—hundreds often being left within the skull. They are also used to secure hemostasis in other surgical procedures. They are less time consuming and cause less reaction than ligatures of silk or catgut.

In 1934, W. Wayne Babcock advocated the use of fine stainless steel wire in the closure of abdominal wounds.[3,4]

In 1934, after an extensive clinical study, Thomas Jones and Associates reported that the use of buried steel wire alone, without stay sutures

for the closure of abdominal wounds, had reduced wound morbidity to an extremely low incidence. They found that the incidence of infection in abdominal wounds in combined abdomino-perineal resections with midline colostomies had been reduced from 27.5 per cent with the use of catgut, to 0.85 per cent with the use of interrupted steel alloy wire sutures.[17] Wiley and Sugarbaker reported in 1947 that a comparison between 100 abdominal wounds closed with catgut and silk and a similar number closed with alloy steel wire revealed a decrease in wound complications from 3.36 per cent to 0.08 per cent.[29] Many other writers report marked improvement in wound healing with the use of alloy steel wire. Tantalum and steel remain imbedded in the tissues forever, but produce almost no reaction.[13] In the seriously ill patient or in the presence of infection, it is the material of choice.

The presence of collections of blood or serum delay healing and also predispose to infection.

Healing requires a normal blood supply. Wounds in an avascular area are slow to heal—as a wound over the anterior surface of the tibia. The more vascular the tissues, the better the healing, as in wounds of the face. It is obvious that surgeons must avoid unnecessary injury to the blood supply, or to interfere with it in other ways by too much local anaesthesia or too tight dressings. Venous stasis impedes the flow of blood, and may be obviated by elevation and pressure dressings. Pressure dressings are useful, but the pressure must be applied evenly and gently, thereby aiding in venous outflow from the area, but not interfering with the arterial inflow. Sympathectomy and vasodilator drugs are sometimes of benefit and more recently the substitution of vessel grafts for obstructed vessels is a dramatic step in the progress of supplying blood to starved areas in the body.

There are numerous general factors which directly or indirectly have a profound effect on wound healing. The age and general condition of the patient, the condition of the blood, and the general circulation may all affect wound healing. Healing requires a normal blood supply, for removal of waste products and supplying the building blocks for repair. Poor circulation and anemia may cause hemoglobin deficiency and the oxygen-carrying power of the blood may be impaired sufficiently to result in tissue anoxia and impaired healing.[19]

Another factor is the effect of protein on wound healing. In the presence of hypoproteinemia, there is a marked delay in fibroblastic proliferation, while a high diet accelerates fibroplasia.[25] Recent studies indicate that sulphur-containing amino acids, as methionine, are necessary to permit the utilization of the body proteins.

Another cause for poor and delayed healing is the presence of low vitamin C levels in the tissues. This was suggested by Sokolov[24] as a cause of wound disruption. This concept is not new. Richard Walters' account of Lord Anson's "Voyage Around the World in 1740," vividly describes the effects of scurvy among the crew—"Scars of wounds that had been healed, broke out afresh and appeared as though they had never been healed."[11] More recent investigations have demonstrated that the histologic basis for failure of wounds to heal in the presence of a vitamin C deficiency lies in the inability of the supporting tissues to produce and maintain intracellular supporting substance.[31] Fibroplasia, mucopolysaccharide production and the formation of reticular precollagen material necessary for collagen production are present, sometimes in greater than normal degree, but collagen simply is not deposited and actually disappears from the tissues. In such wounds, the lag period is lengthened almost indefinitely and the tensile strength is poor. The work of Grindllay and Waugh and others indicates that biopsy of an implanted polyvinyl sponge may aid in the chemical and histochemical studies in what transpires during the healing period.

Twenty consecutive cases of abdominal wound disruption occurring in Detroit Hospitals were checked personally by Drs. J. M. Winfield, J. L. Irvin and myself. Low serum protein and vitamin C levels were present in nineteen cases.[14]

It has been shown that in the presence of a vitamin C deficiency, wounds usually heal normally. This is true also in the presence of low serum protein, and also with the body in a state of partial starvation. The starved salamander can regrow an amputated tail with the same speed as a well-fed one.[20] These findings, however, can hardly be said to indicate that ample concentrations of vitamin C and proteins are not important, but rather serve to illustrate the tremendous effort made by the body to effect healing, in its ability to rob other areas in order to supply the locality of the wound. It has also been ob-

served that secondary wounds heal more rapidly than primary wounds, and obtain a greater tensile strength at an earlier date.[23] Fibroplasia is accelerated if the organism is already engaged in a healing process.[32]

Certain diseases, such as diabetes and nephritis, retard wound healing—as does the presence of distant infection. Difficulties in wound healing are also encountered in the presence of malignancy and peptic ulcer. It is doubtful if the presence of these co-existing maladies play a specific part in delaying healing, but rather it is the debilitating effect upon the body as a whole, in the impairment of circulation and in general depletion in the reserves in proteins and vitamins. In the course of 200 determinations, we found individuals suffering from carcinoma of the gastrointestinal tract or from gastric or duodenal ulcers, to be almost universally low in vitamin C and serum protein values.[14]

An elevation in the temperature of the wound area is thought to increase the rate of cicatrization.[9] It must be remembered that the application of heat also increases the metabolic needs of the tissues and if the rate of blood flow, to and from the area is not likewise accelerated, harm will result.

It is known that the normally healing wound is mildly acid. A pH of 5 to 7 is necessary to maintain vasodilation. This degree of acidity also inhibits bacterial growth and facilitates the activity during the lag period, in the liquefaction and removal of dead tissue and debris.[16]

Here Cortisone, ACTH,[1] heparin[2] and local anesthesia[5] have a deterrent effect on wound healing.

And so the study goes on. Time precludes the mention of the numerous contributions to this problem. Many investigators continue to add bits of information. Perhaps tomorrow the levels of those protein components necessary for normal healing will be as easily controlled as ascorbic acid levels or the prothrombin time. Where will our efforts fit into the general picture?

Dr. John Watson, surgeon to the New York Hospital, in an address delivered in 1856 before the New York Academy of Medicine, on the subject of the history of our profession, made the following observation:[27]

"It is pleasant, as well as profitable, to turn from the bustle of active life to the study of the past—to the origin of our art, to the principles and necessities that called it into being, to the struggles of our ancestry. We are thereby better able to understand our own position, to know how far we have advanced, to whom we owe our progress, the labor still before us, and the places we ourselves are likely to occupy in the estimation of those who are to follow us."

Startling advances have been made since Dr. Watson's speech 100 years ago. A review of those advances of the past fifty years, and a study of present-day contributions offer convincing proof that, although we may be justified in being both pleased and proud of the present status of surgery and the art of wound healing, we must not be satisfied. Better to say that we have made a good beginning, than to feel we have reached the peak. We must profit by the experience of our predecessors and continue to work for better things to come.

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(Continued on Page 237)

Industry's Skill and Mankind's Benefit

By Francis C. Brown

Bloomfield, New Jersey

IT IS a distinct honor to have the opportunity of appearing before your distinguished gathering here today, to present the story of how the American pharmaceutical manufacturing industry has co-operated with physicians and pharmacists in making the theme of this symposium possible.

The firm which it is my privilege to head has a motto which exemplifies its dedication to medical service. This is, "Allied with physicians in research against disease." Our entire industry is indeed allied with physicians, for the purpose of providing the medical profession better instruments to use in conquering or managing disease.

"Yesterday's hopeless and today's cured" exemplifies the purpose of our existence as well as the theme of the meeting here today. Whatever our individual role may be, we share one common objective and this is to promote and make possible a healthier and happier life for our fellow men throughout the world.

This theme should not be misinterpreted to mean that we are taking time to reflect upon the glory of our achievements; nor should it be understood to mean that we are "resting on the laurels" because American medicine and pharmaceutical research has been brought to the forefront of the world. We fully realize, however, that through historical review we can bring more sharply into focus our present problems and our future challenges. Therefore we meet here today to take inventory of where we are going, and in plotting our future course, we take a look at the course we have followed in arriving at where we are.

In this era of rapid change and advancement in medical and pharmaceutical knowledge, we realize that only as we have built solid foundations can we reasonably look forward to future advancement. The resources which have stemmed from our past are the launching pad for our future explorations into the realm of the unknown.

For example, this clinical institute, now in its twelfth year, was made possible because such men as Dr. Morse Stewart, Dr. George Pierce Andrews and others had the foresight to organize the Michigan State Medical Society. The splendid tradition of medicine followed by the members of your society had its groundwork prepared on this soil by such men as Dr. William H. Camp, famed surgeon, whose studies were instrumental in developing the vast salt industry of Michigan, and Dr. Ernest L. Shurley, pioneer in the fight against tuberculosis and one of the first to use electricity in treating diseases of the nose and pharynx. The contributions of these men and other medical leaders in your state have enabled you to look forward to a bright future for the progress of medicine and health in your state.

This year, the American Pharmaceutical Manufacturers' Association, of which I am president, will enter the golden anniversary of the year of its founding. We frequently wonder how the organizers of our association must have felt in 1908, when they looked about them and saw hundreds of thousands of people every year dying from tuberculosis, heart disease, vascular lesions, pneumonia and influenza, and diarrhea.

Today, we in the United States see tuberculosis, pneumonia, influenza and diarrhea under the effective control of our medical men working with antibiotics and other compounds which were unheard of fifty years ago.

None of us can find complete satisfaction in these singular achievements, since we now look about us and see—heart disease, cancer, vascular lesions and other serious diseases seemingly beyond our reach—much the same as they have been for centuries; in fact, as the pressures and tensions of modern-day living build up, we see every evidence that some of the diseases are on the march forward, at least from the standpoint of comparative statistics. But for medicine and pharmaceutical research, these past fifty years have *truly* been the golden age of advancement. We

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know from our ability to meet the seemingly impossible tasks during this half century that "today's hopeless" will be "tomorrow's cured."

As practically all of us know, there have been magnificent achievements in pharmaceutical and medical research since 1908. Undoubtedly there are some physicians in this audience who were able to bring to their diabetic patients the glad tidings of the discovery of insulin in 1922, which has made it possible for diabetics to live normal lives. Yet it has only been since 1922 that diabetes has not meant certain death to most patients within ten years—or even less in the case of children. The advent of drugs like tolbutamide may open the door in future years to some synthetic substitute for insulin which will vanish the dreary hypodermic injection for the diabetic patients of the future.

In this period of time, our industry has passed many historic milestones. In 1910, Ehrlich's discovery of salvarsan gave new life to our industry by establishing chemotherapy as a tool in the fight against disease.

Although we may announce outstanding drug discoveries or scientific breakthroughs with an element of pride and elation, we in the industry fully realize that these developments may well be accompanied by, or produce new problems, which frequently equal those of the original research.

Sir Alexander Fleming discovered the penicillin mold in 1928 and yet it wasn't until the close of the second World War that the American pharmaceutical industry was able for the first time to produce this lifesaving antibiotic in sufficient quantities to meet our total needs.

Toward the dawn of this century, "pneumonia" was a dreadful word. There was no specific therapy with which to combat it. The mortality ratio stood at approximately 50 per cent. Today, thanks to the advance of medical science when antibiotics are readily available, the mortality has dropped to 4 or 5 per cent.

In World War I, before the sulfonamides or penicillin were known, deaths among our servicemen due to pneumonia amounted to 18 per cent of all service deaths, whereas in World War II these drugs had reduced the death rate among them to 7/10 per cent of the total casualties.

In retrospect, we can also reflect on the one million Americans who died during the influenza epidemic in 1918. Only recently we have seen how the threatened Asiatic flu epidemic could be ameliorated through the co-operative efforts of the industry and the medical profession.

In 1894, Dr. Edward L. Trudeau established at Saranac Lake, New York, a laboratory for research in tuberculosis—the first of its kind in the Americas, and as late as 1916 the Trudeau School of Tuberculosis was established there to give specialized instruction in the treatment of tuberculosis to practicing physicians. Barely forty years later the famous sanatorium which had accommodations for an average of 1,500 patients was closed for lack of patients.

The advance of chest surgery, improved sanitation, the widespread use of simple diagnostic techniques, including mass x-ray, and the development of basic drugs such as streptomycin and isoniazid have enabled the medical profession to bring tuberculosis under good control. This disease which was widespread at the beginning of the century has not been completely licked, it is true, but in the United States it no longer symbolized death.

Fifty years ago, diarrhea and enteritis (which we commonly know as dysentery) contributed greatly to the death rate; particularly among infants and children. While dysentery is still with us as a disease, it can now be managed and cleared up successfully with the aid of a variety of modern drugs such as the nonabsorbable sulfonamides, and several antibiotics. The death rate from this cause has fallen to a mere fraction of the former rate which made it sixth among the causes of death.

The communicable diseases of childhood—measles, scarlet fever, whooping cough, and diphtheria—in 1900, ranked just after cancer as causes of death. Today, with the development of immunizing vaccines and antitoxins the death rate from these causes has fallen to less than one-thirtieth of the 1900 total. While whooping cough and diphtheria are serious infections, they are almost never encountered today among children who have been immunized.

Typhoid fever was frequently encountered at the beginning of the century and accounted for a significant death rate. The disease is now almost unknown in our country and no deaths have been reported for almost ten years. It has fallen victim to the advance of sanitation, the universal use of chlorine in municipal water supplies, and typhoid vaccines.

In spite of the arsenicals, syphilis with its horrible consequences was widespread around the turn of the century. For the period 1920-1924, deaths from syphilis had jumped to 17 per 100,000 of our population. There was widespread emphasis on the dangers of this and other venereal diseases in the public health services of our federal government and of the states and cities. With the advent of World War II, our armed forces were scattered throughout the world where many were exposed to this dreadful disease. However, aided by the important pharmaceutical tool, penicillin, which came along with the war, our alert medical personnel were able virtually to eradicate this disease. Many medical professors would have great difficulty in finding a patient with a typical Hunterian chancre for case study presentation to his classes today.

The diagnosis of Addison's disease, acute pemphigus vulgaris or disseminated lupus erythematosus was a certain death warrant fifty years ago. With the development of adrenal extract the synthesis of desoxycorticosterone and later cortisone, Addison's disease was brought under control and with the development of the newer corticosteroids, the grim prognosis of pemphigus and disseminated lupus was changed to one of bright hope. Many of these patients can not only be kept alive, but many can be helped considerably under careful medical management with the use of these new medical tools.

At the beginning of the century, the conditions of our mental hospitals were deplorable, to say the least. Once patients were admitted to these inadequate hospitals, they were virtually life-long prisoners. Today, our mental hospitals are the finest in the world. Thousands of patients are being rehabilitated and discharged home from these hospitals as a result of the use of the newly developed psychotherapeutic drugs. There are some who believe that the advances made in treating mental disease with drugs may make it unnecessary for the future large institutions which have been so costly to build and maintain and so difficult to staff; that we may soon be able to rehabilitate most mental disorders by a short hospital confinement, followed by outpatient care which will allow these people to remain on their jobs and to reside in their home communities as useful citizens. The savings in human resources which this will mean are enormous.

Today we are armed with vaccines, antibiotics and chemotherapeutic agents which can combat many of the previously serious or fatal diseases. American medical and pharmaceutical research laboratories have opened new vistas in the treatment of disease. Broad-spectrum antibiotics, cortisone, hydrocortisone, prednisone and prednisolone, tranquilizers, new vaccines—all these and many others have come about since World War II.

This, then, is the past. These are the foundation blocks, the launching pad for moving into the future. Each company in the pharmaceutical industry knows that its life blood is research. More than $127 million are spent annually on basic and applied research by the pharmaceutical industry in the United States. This is about 7 per cent of total pharmaceutical sales, both ethical and proprietary. However, most of this sum was spent by the ethical drug firms looking for new prescription products with most ethical companies spending between 5 and 10 per cent of their sales for research and development. The ethical drug companies normally account for the newer and better pharmaceuticals.

Yet, many of the companies which pioneer original research into new avenues of medicine know that they face odds which are frequently out of proportion to the risks of the research firm. Frequently, millions of dollars invested in researching and developing products result in products with a short life, due to newer concepts. Often a new product is rapidly outmoded by a new development of the same company or of some competitor. This is an integral part of the risk involved under our system of competitive free enterprise.

Faulty patent protection in some foreign markets and frequently the long-drawn-out period required to obtain a patent, places a discovering company at a disadvantage. Many "generic name" manufacturers, which almost never either conduct or sponsor research programs directed to the discovery of new therapeutic agents, will copy the discoverer's product and offer it at ridiculously lower prices, which they can sustain only because: (1) they do no research and (2) they spend little or nothing in helping the medical profession gain knowledge of the uses of new medicinals, by way of promotion or detailing.

Patent protection for new medical products is an important stimulus to medical progress. The great medical discoveries which produced insulin,

the sex hormones, the cortical steroids, the sulfonamides, the antihistamines, the psychotherapeutic agents, have all come out of countries that have strong patent laws. This is natural because patents are incentive to discovery. Yet our patent laws, which go back to 1790, have been under pressure of increasing criticism for the past ten years, and there are some who have confused patents with illegal monopoly. Patents not only prevent science from going underground, they are one of the greatest bulwarks against socialized medicine and should have the unquestioned support of the medical profession against all attacks.

Moreover, I believe that it is in the interest of the public that the medical profession support the companies which sell under specialty trade names and to discourage those who sit on the sidelines and copy their products without joining in the attack on disease by actively conducting and supporting research. It is interesting in this connection to note that there has been a steadily increasing trend toward prescribing by specialty name. In the last five years, new prescriptions by specialty name have increased from 74 per cent to 83 per cent of the total, while generic name new prescriptions have declined from 16 per cent to 12 per cent, and compounded prescriptions from 10 per cent to 5 per cent.

Then, too, the manufacturer often faces the irate professional man or a member of the general public, who charge, "If all the money your companies spend in promotion were cut in half, prescriptions would cost much less."

The truth is, that if promotional costs were eliminated, the price of the prescription would be affected very little. In the February 16, 1957, issue of the *Journal of the American Medical Association,* many of you undoubtedly read the excellent editorial on this subject which pointed out that promotional costs represent approximately 5 per cent of the total value of the product. In other words, if we ceased to inform our professional men of our latest developments and the uses for our products, our savings of promotional dollars would reduce a 50-cent prescription to approximately 47 cents.

The relative insignificance of promotional cost can best be stated in terms of the average cost of *medical care* per patient. Measured in terms not only of the prescription cost but the probable physicians' charge as well, promotion costs are only about 2 per cent of the total.

However, it is not my intention to burden you with the problems, large and small, that our industry faces. We, like you, the practicing physician, are dedicated to our task. We, like you, fully realize our responsibilities to the profession and the public in general. However, we must also realize that, as a business organization, we also have a moral obligation to return to our investors a fair return on their investment in our operations.

Before World War II, the American pharmaceutical industry had made little headway. This was due primarily to a lack of research on the part of our member companies. Many American manufacturers sat quietly in the shadows of foreign competitors until the late thirties, when we realized that a rapid reappraisal of our industry was necessary for the welfare of our nation. This challenge was met successfully, as many of us can attest today. Out of the war we therefore derived one substantial benefit. It turned our minds to research.

But we cannot become complacent over our gains. Complacency's only achievement is ultimate defeat. Never before in history has cooperation between physicians, pharmacists and drug manufacturers been needed more than today. That is, a unified effort directed at making today's hopeless tomorrow's cured.

The launching of the first Russian Sputnik into the heavens suddenly focused our attention on our national complacency and the relative inadequacy of some of our scientific programs. In quick succession, we heard speech after speech extolling us to encourage our youth to train in the sciences. This is also true in medical and pharmaceutical research where we need the minds and desires of young men and women who will emulate men such as Pasteur, Laennec, Koch and Lister to account for the advances of the future. Continued dissatisfaction with our present and a desire to improve it will assure a more hopeful future.

Most significant to me, is the challenge of the present. Within the past two years, we have seen the reaction of our people and our government leaders to President Eisenhower's serious illnesses. World conditions being at a straining point have indicated the desperate need for strong leaders in the free world. Despite all our scientific advances in ballistic missiles and in military weapons, our future is only as secure as our leadership.

Heart disease and cardiovascular disorders are taking a tremendous toll of many of our nation's most brilliant and capable men, many of whom would ordinarily have had many years of productive life remaining by which we would have all profited.

To attain health for our entire population, we must do more than nourish a desire to combat illnesses. We must attack the sources of these diseases which rob us of the men and women upon whom our future depends. We must encourage healthier living habits among our young people on whom we would rely for defense in case of world conflict.

These goals of insuring our leaders and our people of healthier lives will only be met by the co-operation of physicians, pharmacists, and pharmaceutical and medical research organizations.

We must encourage our young men and women in medicine, in pharmacy, in biological sciences and in our industry to focus on our common aim in life—to aid and further the well-being of men.

We must also turn more attention to research into the basic problems of health in order to determine the causes and functions of disease-causing organisms. Today, our industry sponsors thousands of research projects in medical colleges and other colleges and nonprofit institutions throughout the nation. Further aid must be forthcoming from both industry and the professions. Advancements in basic research will benefit all of us.

But we must impress upon the public that the progress of science is often slow and that if our health problems are not resolved soon, it is not because of lack of intelligent effort, and although quicker and better communication between scientists working in the same areas is needed, the solution of health problems requires a depth of time which crash programs will not ordinarily supply. It takes the impact of the findings of one mind upon another mind that is receptive and ready to carry on further to bring about such solutions, and generations sometimes pass before the seeds of one mind's findings fall upon the properly prepared soil of another generation. Crash programs supply neither time nor perspective nor experience. Only time can supply these needed factors.

Every so often a crash program may be undertaken, as is now being done in the field of cancer where public emotion is so great and where the complexities of the process have so long defied solution and where the ravages are so great. But these must be the exception. There is danger of such programs in that they may divert us from *Basic Research*, to a search for *end products* before we have ascertained the causes and this slows down the ultimate progress of science. Moreover, it may tend to lead the government *away* from its *historic role as patron of basic research* into *applied research*, which, under our economic system, is the proper field for private initiative, whether university, industry or individual.

The pharmaceutical industry's broadening research programs into virus diseases, enzymes, steroids, hormones and radioactive drugs may well be the basis for future breakthroughs in our most pressing national health problems.

Most research projects such as these represent departures from older or more standard procedures. Frequently, these represent millions of dollars in expense which may or may not produce results. However, the industry accepts this challenge with faith, since so long as our system of free enterprise is preserved, the horizon for discovery will be unlimited.

Greater co-operation and exchange between industry and the professions will provide for a mutual understanding of problems faced by each group. The critics of industry and medicine ultimately cry for tighter governmental controls. This, in turn, leads to a socialistic economy. Frankly, none of the responsible manufacturers of pharmaceutical preparations object to governmental controls to the extent necessary to insure purity and high standards of manufacture. In fact, responsible manufacturers *want* such controls. However, if the industry should become more directly under the supervision of government, the result will be to stagnate progress and to force us to look only backward and not ahead. We must, therefore, look askance at suggestions that advertising by the industry addressed to informed professions should be censored by government, that the principle of product certification by government should be extended beyond the present area of antibiotics and vaccines, or that more extensive research for disease cures should be financed by the government, thereby diverting our taxes into research that can best be conducted under private control.

The challenges of the future can and will be

met by medicine, pharmacy and the drug industry, providing we continue to operate in an atmosphere of freedom from unwarranted regulation or restriction.

The code of ethics subscribed to by our Association of Manufacturers represents the same high traditions as that subscribed to by members of the American Medical Association.

American Pharmaceutical Manufacturers Association

Code of Ethics

We Believe

That the pharmaceutical manufacturer should ever be mindful of and guided by the fundamental principle that his business is a solemn calling and a glorious profession dedicated to a great and paramount public service.

We Believe

That the pharmaceutical manufacturer should always be animated by a true spirit of justice, amity, responsibility and service in all his dealings with others and unswervingly act at all times in pursuance of the elementary conception of right, honorable and ethical business conduct as befitting his membership in a society built upon the sure foundation of a democracy, organized in harmony with the most enlightened civilization in history, inspired by the teachings of our divine master, and finally directed equally to preserve the opportunity and rights of each for the benefit of all and to enhance the general happiness and welfare.

We Believe Therefore,

That it is the unquestioned obligation of each and every pharmaceutical manufacturer

To manufacture medical preparations only under proper conditions and of established value, pure and accurate in composition, and true upon and to their label.

To label, advertise and merchandise such preparations only in a manner wholly free from misrepresentation of any kind, in complete accord with both the spirit and terms of the applicable laws, and in entire harmony with the highest standard of commercial morality and ethics.

To refrain from in any way or to any extent infringing upon the equal rights (whether moral or legal) of a competitor and unfairly interfering with his business, as by uttering false or disparaging statements about him or his products or his business by misappropriating his trade names or formulae or the distinctive form or dress of his products, or by enticing away his employes.

In short, constantly, earnestly and conscientiously to strive at all times and in all ways to advance the science and to elevate the profession of manufacturing pharmacy to the highest and idealistic plane of public value to the end that it may best and most completely serve the medical profession and the public at large.

This We Do Believe

"Whatsoever ye would that men should do to you, do ye even so to them."

The standards which both of our groups have set for their operations would seem to many of our counterparts in other nations as goals impossible of achievement. Yet, these codes were outlined by our organizations to produce, and they have produced for our public the finest drugs, medical care and treatments in existence.

We are also aware of how the American public has benefited because each company is proud of and careful to maintain its corporate prestige and reputation. Similarly, the practices of the medical profession being on the highest professional plane have given our people abundant faith in the medical profession.

Each ethical pharmaceutical company has pride in its corporate name and the products of its research which bear its labels. That is why our ethical industry markets its research discoveries as trade named products. We purposely wish to distinguish them from other similar "brand-nameless" products, which at best are secondary imitations. Our trade names are our protection for the quality of our pharmaceuticals and our research much the same as the initials "M.D." after a physician's name distinguishes his professional character from the unlicensed charlatan.

There are undoubtedly some complaints about trade name practices or promotional mailings which, as physicians, you could make. Yet, I hold that the industry of the future must go one of two ways. It will continue to advance as it is doing and provide medicine with therapeutic tools of value or else it will be squeezed into senseless conformity, thereby losing its identity. The normal consequence of complete conformity is mediocrity. Conformity imposed by the socialized medical system of Great Britain, with its approved formularies and regulated prices, has greatly restricted the progress of medicine in that great country. Companies with pride in their research accomplishments will never subscribe to having their products classed as another Grade A aspirin, or another hormone—they will always wish to have them specified by their chosen specialty names—names which impart quality and signify the progress which research makes.

The solution of many of our mutual problems will be solved only with the passage of time and sincere efforts directed toward closer co-operation between the members of the health professions and industry.

I am happy to say that the presence of pharmacists and manufacturers at your institute this

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Tympanoplastic Procedures for Chronic Ear Infections

By James E. Croushore, M.D.
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THE surgical treatment of chronic ear infection was developed more fully in Germany than in any other country about seventy-five years ago. The standard operations were the simple, modified radical and radical mastoidectomies. These operations, especially the radical mastoidectomy, were designed to eradicate infection and obtain a dry ear without any attempt to preserve or improve hearing. In fact, the residual hearing was usually sacrificed by the radical mastoidectomy.

In 1938 Lempert[2] of New York first published an article on the fenestration operation for otosclerosis. He subsequently published numerous articles on technical improvements of this operation and other surgical procedures for infections in the temporal bone. He stressed complete knowledge of the surgical anatomy, meticulous technique and above all the use of magnification to perform this exacting surgery. Lempert's teaching prepared other otologists to use these technical methods in developing reconstructive procedures on damaged ears due to chronic infection.

Employing the basic principles, advocated by Lempert, otologists in Germany led by Wullstein, Zollner and Heermann developed various technical procedures, designed not only to eradicate infection but to preserve and frequently to improve hearing. Otologists in other countries, especially England, have contributed to this development.

Attempts have been made to classify ears according to the pathologic changes produced by the chronic infection and the surgical procedure employed to correct the damage. The following classification is quite inclusive of the various degrees of destruction found at operation (Fig. 1):[1,3,4]

Type 1.—Lesions affecting the tympanic membrane and tympanic cavity and without damaging the ossicular chain.

Type 2.—Lesions affecting the tympanic membrane and tympanic cavity with minor lesions of the ossicular chain, such as necrosis of the long process of the malleus.

Type 3.—Lesions affecting the tympanic membrane, cavity and ossicular chain without damage to the stapes.

Type 4.—Lesions affecting the tympanic membrane and cavity and ossicular chain with damage of or destruction of the stapes.

Type 5.—As Type 4 together with disease of or closure of the round window.

Type 6.—As Type 5 together with disease or closure of the oval window.

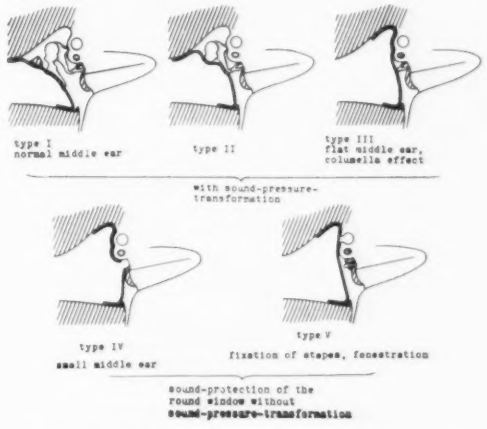

Fig. 1. Wullstein's Classification of Types of Tympanoplastic Operations. (Tr. Am. Otol. Soc., 1956.)

For reconstruction of the damaged middle ear the following operative goals are of prime importance:

1. The reconstruction of the hydrodynamics of the inner ear in the scala vestibuli through the oval window or through creation of a new window in the lateral semicircular canal and in the scala tympani, through the round window niche and membrane.

2. Restoration of the proper function of the Eustachian Tube.

Presented at the Annual Meeting of the Michigan Chapter to the American College of Surgeons, March 18, 1958.

3. Reconstruction of an air-filled tympanic cavity, covered with mucous membrane and free from epidermis.

4. Implantation of a mucous membrane graft in very severe infections or extensive defect of the mucosa.

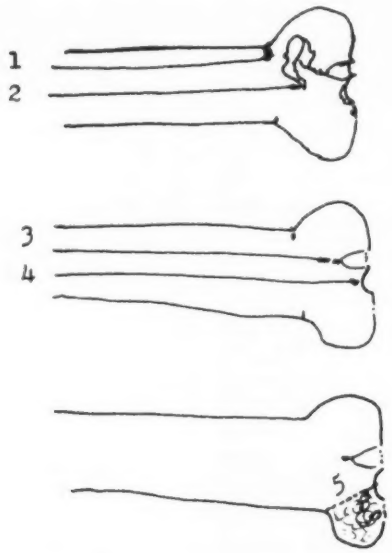

Fig. 2. Technique for use of electric diagnostic probe.
1. Probe to annulus (bone conduction).
2. Umbo compared with annulus.
3. Probe to head of stapes.
4. Probe to promontory (bone conduction).
5. Pack off round window with cotton saturated with mineral oil. If hearing is:
   (a) Better, then oval window is open.
   (b) Same, indefinite.
   (c) Worse, then oval window is immobile.

5. Creation of sound protection for the round window and, if possible, restitution of sound pressure transformation to the oval window through substitution of the partly or totally defection tympanic membrane (skin graft).

Thus to obtain a dry ear and improve hearing several requirements must be fulfilled:

1. The chronic infection must be eliminated completely and all complications must be definitely prevented.

2. One must build a new air-filled, closed tympanic cavity which is properly ventilated through the tube.

3. At the same time, a new system for conduction of the acoustic stimuli through the middle ear to the cochlea must be constructed.

One can readily visualize that each case presents its own individual problems and draws upon the surgeon's ingenuity as the pathological changes are revealed under the operating microscope.

The necessity of a closed tympanic membrane to aid in elevating the hearing is appreciated since the areal ratio of the tympanic membrane to the stapedial footplate is 28 to 1. The ossicles have a lever mechanism, of 1.3 to 1. Thus the transformal ratio is $1.3 \times 28 = 36.4$. Also the disruption of the ossicular chain results in about a 35 to 40 decibel hearing loss.

Not only does a perforation in the tympanic membrane result in a decrease in the areal ratio, but the perforation permits sound waves to strike the round window resulting in a negation of the impedance mechanism between the oval and round windows.

Satisfactory improvement in hearing cannot be obtained from tympanoplastic surgery unless there is good cochlear reserve. Certainly the bone conduction should not be below the 30 or 35 decibel level if practical unaided hearing is to be achieved. Wullstein[2] has indicated the clinical factors which constitute the indications and prognosis for tympanoplasty according to their audiological significance:

1. Quality of the inner ear.
2. Function of the Eustachian tube.
3. Hydrodynamics of the inner ear.
   (a) Function of the round window
   (b) Function of the oval window
   (c) Function of the new window
4. Quality of the mucosa.
5. Quality of the tympanic membrane.
6. Quality of the ossicles.

Considerable information about the mobility of the oval and round windows at times can be obtained by use of the electric diagnostic probe. At the same time additional information is gathered about the cochlear reserve. Kobrak, in his preoperative testing in our clinic, employed the technique illustrated in Figure 2.

The contraindications to tympanoplastic surgery are:

1. Complications of the middle ear and mastoid infection which are a danger to life. If meningitis, brain abscess or sinus thrombosis has occurred, basic surgical principles as eradication of the focus

of infection and drainage are employed without consideration to reconstruction of a sound conduction mechanism.

2. Poor cochlear reserve. When auditory nerve function is poor, the primary purpose of surgery is to eradicate infection and obtain a dry ear.

Skin for the graft is obtained from the medial third of the posterior surface of the auricle and the adjoining area over the mastoid process. Full thickness skin is excised and then the oval shaped graft is denuded of all subcutaneous fat until skin only remains. Skin in this area has but few elastic fibers which deminishes shrinking of the graft as healing ensues. Extreme care must be taken to exactly fit the graft to a properly prepared bed. Bone adjoining the marginal remnant of the de-epithelized tympanic membrane must be completely freed of skin. There must be no wrinkles in the edges of the graft and allowance is made for the moderate shrinkage. Gelfoam saturated with hyaluronidase is placed in the hypo-tympanum to give support to the graft and insure an air passage from the Eustachian tube to the round window.

The postoperative care must be conscientious and meticulous. All packs are removed in nine to twelve days. Inflation of the Eustachian tube is commenced in about three weeks and continued weekly for two months.

In his zeal to improve hearing there is the temptation to preserve damaged ossicles and possibly not meticulously remove all pathological material. The surgeon must constantly be aware of this dilemma.

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PHYSIOLOGY OF WOUND HEALING

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Editorial

THE DOCTOR AS A CITIZEN

Every doctor owes a debt to the community where he lives and practices medicine. That community is a good place to live and raise his family because civic minded citizens have made it so by dint of their endeavors.

Every doctor should be a leading citizen. He may be the busiest man in town but that doesn't excuse him from the obligation of giving something of himself to some civic project. He will quickly find that his training and experience makes him a very valuable man to the citizen committees who work for the betterment of his community.

The day when a doctor could place himself on an isolation pedestal apart from other men is gone. It is doubtful that it was ever a diplomatic excuse for the professions' lack of community effort. It has only been in recent years in many towns and cities that doctors have met their fair share quota of United Fund Drives. Today it is unthinkable in most areas for the medical profession not to oversubscribe their allotments.

The doctor of today must be interested in politics. His very professional existence may depend on that interest. Last year 704 bills of medical interest were introduced in the National Legislature while ten years ago the number was 200. Ninety-two bills on health were introduced in our Michigan State Legislature ten years ago, 137 in 1957.

The Forand Bill, which is socialized medicine for all those eligible for social security benefits, is high on the agenda for next year's Congress. The lobbyists are girding themselves for another effort on these matters and the citizen doctor should be aware of the need for all possible support to organized medicine. His county and state medical societies and the AMA are fighting his battles for him and the ultimate medical welfare of the public and they need his support.

The doctor of today, as a good citizen, must be alert to these, his duties as a responsible member of his community.

OLIVER B. MCGILLICUDDY, M.D.

THE DOCTOR IS A CITIZEN

As we were making the final editorial revisions and comments for this number of THE JOURNAL, which is dedicated to extolling the medical men as worthy citizens, came a news item and an editorial in the *Detroit Free Press* for January 3, 1959.

MEDICAL-CENTER CURE FOR A BLIGHTED AREA

The Federal Government's authorization for Detroit to start planning development of a huge mid-town medical center starts the city off in the New Year with bright hopes.

The proposed $100 million development is not going to become reality for several years. Under existing schedules, it may not be completed until well into the 1970s.

Nevertheless, this huge and necessary undertaking has been given the assurance of Federal aid, and the next few years should see substantial progress.

What is envisioned is the clearance of about 235 acres between Mack, Warren, Woodward and Hastings, eliminating some of Detroit's worst slums, and creating not only a vast medical center but also a high-type residential district.

Being close to Wayne State University and the expanding cultural center, this development should have a tremendous impact upon the heart of Detroit. In relation to the Civic Center, it should contribute to almost complete rehabilitation of the city from the river to the boulevard. And it is reasonable to anticipate that, even before it is fully complete, it will have a salutary effect upon large adjacent sections of Detroit.

The news item of January 1, 1959, and the above quoted editorial mark progress in a great idea showing the force and wide extent of benefit in the ambition and progress of Detroit's medical profession. Editorially (July, 1956, page 830), THE JOURNAL reported "Plans for a New Medical Center," using Harper Hospital, Grace Hospital, Women's Hospital and Children's Hospital plants now in operation. The surroundings of some of these hospitals were slum areas. It was proposed to acquire about eighty-five square blocks surrounding these hospitals, extending from Woodward to Hastings—the new expressway—and from the Edsel Ford Expressway to Mack. About six of these eighty-five blocks were to be occupied by Harper, Grace and Women's Hospitals and the auxiliary services. An extension was to include Children's Hospital which is some distance re-

(Turn to Page 240)

The Community: A Challenge in Responsibility

Not too many years ago, the medical profession was reawakened by public cries for additional participation in community affairs.

From my vantage point in January, 1959, it is encouraging to be able to say that Michigan doctors of medicine have risen to new heights as participants and leaders in community affairs.

During and shortly after the War, the physician was of necessity forced to reduce his civic activities, because he was completely absorbed in his role as the health guardian of the public. But his absence from community functions, no matter how justified, was soon criticized by his fellow citizens. The doctor then came to the realization that his position of respect and prestige in the community bore a direct relationship to his participation in activities with his friends and neighbors.

During 1958, it was my distinct impression that Michigan doctors have found a better balance than ever before between their primary responsibilities as a physician and subordinate duties as a citizen and neighbor.

In 1958, an impressive record of achievement has been racked up by physicians throughout the State in nonmedical fields including politics, religion, civic clubs, voluntary health groups, education and civic government, to name but a few. To be more specific, during the last year at least three doctors were named by their communities as Citizen of the Year; at least one served as Mayor; countless were elected to public office (school boards, supervisors, coroners, medical examiners) and so on.

My hat is off to these men who have served so well their communities and their profession.

Principally by these means will medicine develop an ever-better rapport with the public.

Delbert B. Dallenbach

President, Michigan State Medical Society

President's

Message

moved. The whole area is about 200 acres and includes some worthwhile structures which would help make the center more useful and attractive.

It seemed a most impressive and ambitious dream which included slum clearance, Wayne State University campus extension and innumerable new facilities, residence areas, and so on. On December 31, 1958, the Federal Housing and Home Finance Agency approved the spending by Detroit of $9,147 for first plans indicating Government approval of the general project, the largest in the country. The medical campus will be developed in a 235 acre area including that mentioned above. The program calls for the expenditure of $10 million of city funds and $20 million federal funds. Private expenditures of existing and projected improvements will exceed $100 million. This is a most interesting concept of the "Doctor as a Citizen."

AGED CARE PLAN

"The House of Delegates of the American Medical Association has approved a report which calls for physicians to provide medical services at adjusted rates to 'persons over sixty-five with reduced incomes and very modest resources.'"

This action was adopted unanimously by the House of Delegates approving a resolution which has been introduced through the AMA Board of Trustees by the Council on Medical Service. This resolution had been written and re-written. It has been the subject of months of study by the AMA Council on Medical Service. It had been presented to the Board of Trustees with trepidation because of its far-reaching implication, but the Board of Trustees had actually strengthened its intent and emphasized its wording. The reference committee had also spent many hours in phrasing its statement of principles which was quoted last month.

Family physicians in private practice throughout the ages, members of the American Medical Association traditionally have given care and attention to their self-reliant, proud and independent older patients, even though the resources of these people have been inadequate to provide for their retired, non-working years. In those days, every doctor had a few patients among his respected clientele to whom he never, or almost never, made any charge —or a token one, ridiculously small. Most of our doctors still have these loved and loving patients and old friends. In past years, this list also included the indigent, the respected victims of circumstances—but still indigent. Most of these were treated free by physicians, some were dependents of the county, the city, the welfare agencies, relief agencies and the charities—Salvation Army, Jewish Relief and St. Vincent de Paul, and others.

The truly indigent have always been subjects of public or private relief. THE JOURNAL of the Michigan State Medical Society, in an editorial "Government Wards Not Indigent" (November, 1945, page 1216), reported the action of our own House of Delegates and the earlier action of the Executive Committee of the Council in the previous February which declared that "wards of the government on public relief are not indigent." The Government, by its very action of adopting and accepting them, had removed them from that category. It should pay reasonable fees for their medical attention as well as food, shelter and clothing. The old policy of paying the doctor half or less than half of regular fees was disclaimed and disapproved. Governmental agencies should pay reasonable fees. A committee was appointed and a Schedule of Fees for Governmental Agencies was developed. (Incidentally, it was this schedule adopted, published and in use in Michigan which sold the home town care for service-connected disabilities of veterans to the Veterans Administration.)

The recent action of the AMA House of Delegates does not refer to this indigent group of people. It refers mostly to unwilling victims of circumstance for whom adjusted rates and charges are suggested. The Federal Congress, in the middle years of the 1930's, after long consideration and demands from leaders of labor, established age sixty-five as the retirement age at which laborers and employed people were supposed to retire and allow the younger groups to take over their established and desirable jobs. The Government established the compulsory retirement program by autocratic action.

The medical profession objected, considering this measure uneconomic and in many ways vicious. To date, the profession has refused to join the Social Security program. This action of the United States Government placed hundreds of thousands, and now millions of people in the unemployment rank. Some had been able to lay aside modest resources, but too many must depend only upon the meager returns of the Social Security program.

These "benefits" have been increased periodically until they have reached in some instances a fair-sounding amount. The top allowance now is $116.00 per month for the retired worker and half that for his wife.

People on fixed "benefits" whether on annuity, set income or social security are again victims of forces far beyond their control. The dollar has not been stable. The Government has failed to set a fixed standard. Labor and employed people by constantly increasing wage and salary demands have helped reduce the purchasing value of the dollar. In the 1930's, the United States was taken off the gold standard. Gold was called into Fort Knox and paper money was reduced 39 per cent in value by setting an artificial value on the gold. In the last twelve years, increased costs of living including wage, salary and other costs, have reduced the dollar to $0.47.

The result has been tragic, especially for our senior citizens who had no chance to recuperate, no chance to plan ahead. They are complete victims of inflation which has overtaken the nation. These "persons over sixty-five years of age with reduced incomes and very modest resources" are included in the recent action of the AMA House of Delegates. It is they for whom the Blue Shield throughout the country and some other insurance groups are attempting to write another insurance policy to supplement those in existence which the person with means and resources can still buy. There must be some readjustments in the age restrictions for non-groups joining Blue Shield. There has never been an age limit for groups joining, and no one is ever cancelled on account of age. Twenty-nine plans now have no age limit specified for non-group subscribers. Thirty-two have age sixty-five specified, and the others have various age limits and restrictions. Abolishing these limits is the first step in complying with the newly announced principles by the AMA House of Delegates.

The Blue Shield Commission immediately (on December 5) started work on a suggested master formula which the various state and local plans could accept or modify according to their local requirements or obligations. We believe this expression of principle by the AMA is the most important action the AMA has taken in many years. The development of Blue Shield Plans has been from the "grass roots," with small groups in various areas developing simultaneously.

For years the AMA administration and medical economic departments were begged for assistance, but local, state and county groups were advised to practice medicine and leave insurance to insurance people. The AMA has made a complete reversal of position, for the first time taking the lead and advising service contracts for these millions of people with reduced or no incomes and modest resources. Victims of governmental policies, they are an ever-increasing group.

The medical profession must treat these patients regardless, because they do not count in the category of state, county or city welfare service except as they might be declared medically indigent on occasion. These, our doctors *will* care for, if possible by insurance methods (but privately anyway), as the profession always has done.

NATIONAL LEGISLATION

Forand Bill

Substitutes for the Forand Bill will be introduced early into the new Congress and will immediately be sponsored by the senior citizens worried about the care of the aged, labor and welfare organizations. Innumerable persons will support this measure, as they did in the last Congress.

For the medical profession, it has a very serious portent. The bill in the last Congress provided for surgical and hospital care for "beneficiaries" of Social Security. That includes everybody over sixty-five on retirement or not, who are drawing benefits and/or retirement pay—also allowances for disabilities. There was no limitation on account of ability to pay. One can easily imagine how many people over sixty-five would promptly seek these services. The number of persons over sixty-five is constantly increasing, now over 15 million. That is a large proportion of our total population to be placed in the category eligible for care under federal supervision and payment.

It is estimated that only 27.7 per cent of these elderly citizens have no other resources for taking care of their needs than what they get from Social Security, and some meager annuities and pensions. These are the people for whom the AMA proposed a new prepaid reduced rate service insurance program. The balance—the millions who are capable of self support should not be radically and automatically included, either in this AMA program or in the Social Security program as provided by the Forand Bill.

The medical profession is in the limelight and on the spot. It must provide a prepayment program to care for the admittedly unfortunate victims of a social system which collapsed under their feet. It must make this program work. If this is not done, we have no logical objection to a measure like the Forand Bill. Nothing would be gained by opposing one measure if we did not have a substitute for it—especially if that measure offers medical and surgical relief to 15 millions of voters. The medical profession could limit its plan to a comparatively few (4) millions. If action is left to Congress, there is no indication that limits will be placed upon numbers or qualifications of the prospective "beneficiaries."

During the past years, the nation has had an object lesson of what happened when a token restriction is placed upon the benefits offered. The veteran is asked to sign a statement as to whether he is able to pay before being admitted into the Veterans Hospital. Nobody inspects these statements, and a recent report showed that among the 190,000 patients in the Veterans Administration Hospitals, only 39,000 are for service-connected disabilities.

BLUE SHIELD ADMINISTRATION

Quite generally throughout the nation, Blue Shield Plans and their Boards of Directors are fairly well dominated by the medical profession. In fact, that is one of the fundamental attributes constituting the Blue Shield program: the plan must be endorsed and its administration directed by representatives of the medical profession. An occurrence reported in the December number of *Connecticut Medicine* (page 833) in the report of one of CSMS Council meetings, is a resolution from the CIO annual convention in 1958, reading as follows:

"This convention goes on record as requesting that Connecticut Medical Service voluntarily change its by-laws to provide a new set-up in its Board of Directors, so that 50 per cent of its membership shall be from those community interests which are essentially the consumers of the services offered by the CMS; and to provide further recognized spokesmen for organized labor.

"If no action is taken by the Connecticut Service Board of Directors to grant this request by January 1, 1959, legislation be sought in the next session of the General Assembly to require that any organization operating in the State of Connecticut which offers insurance against hospital care or medical expenses on a so-called non-profit basis shall be required so to constitute its Board of Directors that at least one-half its members represent consumers of the services which are offered; and further provided that, of the consumer representatives, at least one-half shall be recognized spokesmen for organized labor in Connecticut."

This could be the beginning of an organized effort to take over the management of the medically sponsored Blue Shield program.

TRIBUTE TO WILLING WORKERS

We have received several communications indicating that some of our members are critical of the action taken by the AMA at Minneapolis, due to the assumption that possibly most "senior citizens" would be included in a service medical care plan with reduced rates and payments. We thoroughly disagree with these implications and criticisms.

The six Michigan delegates represented the Michigan State Medical Society as delegates to the AMA House of Delegates. During that convention, practically their whole time was devoted to sessions, reference committees and discussions with other informed persons or groups.

Much of the activity of the Council on Medical Service for the past two years has been concerned with care of the "senior citizens," especially those on old age assistance, inadequate pensions, reduced incomes, and those who are victims of inflation. R. L. Novy is a member of this Council which was holding frequent meetings, rewriting and changing resolutions in conformity with almost hourly discussions with the AMA trustees. He was never free for relaxation. The AMA, by its action in Minneapolis, has made a complete reversal of concept in advocating care of the service type—a unanimous action.

William A. Hyland, chairman of the Michigan delegation, also served as chairman of a reference committee and was subject to on-the-spot conferences and special meetings, as well as being spokesman for Michigan. John A. DeTar was chairman of this reference committee considering Old Age Care.

The delegates from Michigan were sent without specific instructions on any action other than to use their best judgment for the benefit of the medical profession, of the American Medical Association, and for the people of the United States. The solution of medical and socio-economic problems rising from the rapidly expanding old age population turned out to be of vast importance.

This problem could not wait to be sent back to each state for instruction; it had to be resolved immediately.

The delegates remembered that they were representing and were part of the governing body of the medical profession, organized through the AMA, and that their first duty was to serve the American people. A delegate with instructions to vote in a certain way might just as well not attend the AMA House of Delegates Session, and an organization subject to such demands might just as well not meet but take a mail vote; just as much would be accomplished. A delegate must be allowed to use his judgment in controversial matters or in matters setting policies, and our Michigan delegates qualified in this respect.

They performed their duties as they saw them and are worthy of the utmost respect because of their action. Again they may have staved off federal socialized medicine through a Forand Bill or a Murray-Dingell Bill or some such federal legislation.

MEDICINE AND BLUE SHIELD ACCEPT THE CHALLENGE

Seldom, if ever before, has medicine earned such a "friendly press" as greeted the action of the AMA House of Delegates at its Minneapolis meeting in December, when it resolved that "the AMA, the constituent and component medical societies, *as well as physicians everywhere*, expedite the development of an effective voluntary health insurance or prepayment program for the group over sixty-five with modest resources or low family income." . . .

To make such a program possible, the AMA Delegates realistically urged "that physicians agree to accept a level of compensation for medical services rendered to this group which will permit the development of such insurance and prepayment plans at a reduced premium rate."

Thus, American medicine has forthrightly accepted the challenge of the Forand Bill and acknowledged the special needs of our older citizens, many of whom are getting along on extremely modest retirement incomes.

The national association of Blue Shield Plans has responded promptly to the AMA action. Its staff, under the direction of a special committee, is developing a pattern of coverage, payments and subscription rates that can be used by local Blue Shield Plans in developing their local programs for senior citizens.

Each of us will soon have an opportunity to take part in this great professional enterprise. For it will be up to us, as individual physicians, to make good this AMA pledge. We will be called on for a new and crucial demonstration of the ability of our free profession to meet its collective responsibilities by voluntary action in a free society.

INDUSTRY'S SKILL AND MANKIND'S BENEFIT

(Continued from Page 234)

week, indicates that your society has gained considerably from looking back at "yesterday's hopeless." You are the men who will continue to make the health of our nation progress, through your futuristic thinking.

We all can speak of "today's cured" only because of the co-operation between physicians, pharmacists and manufacturers and the healthy respect we have for one another's functions and responsibilities. Each of us has a specific role; however, the goals of each group are the same — the health and well-being of mankind.

I believe that by increasing an exchange of ideas between each of our groups the result will be greater understanding of problems and more frequent solutions to them.

It is with sincere hope and faith, that I predict a president of the pharmaceutical manufacturers association will stand before the members of your society fifty years from now and refer to those diseases which appear hopeless today, as the "cured" of his day.

We all work and pray that this may be realized much sooner.

"Today's professional freedom to be a private practitioner of medicine instead of a slave of government is due solely to Blue Shield, the physician's answer to socialized medicine. . . . Since we have accepted the insurance principle, many patients who previously would be non-paying patients have had their bills at least partially paid. I am rather intolerant of the physician who is not a participating physician in Blue Shield, who in the defense of his attitude, says with a loud voice, 'nobody is going to tell me what to charge.'"—ELMER HESS, M.D., past president, American Medical Association, Seattle, November, 1956.

Michigan Clinical Institute

MEETINGS OF ANCILLARY GROUPS

TUESDAY, MARCH 10, 1959

The Michigan Chapter of the American College of Surgeons annual meeting will be held in the English Room of the Sheraton-Cadillac Hotel, Detroit, beginning at 9:00 a.m.

Clifford D. Benson, M.D., Detroit, is chairman of the Program Committee for 1959. The Committee plans to continue the policy of having a practical program consisting of short papers on a wide variety of subjects. All members of the Chapter, including those in the subspecialties, are invited to submit papers for this meeting. Each speaker will be limited to ten minutes. Whenever possible, it is requested that the speaker provide one formal discussant.

Michigan Diabetes Association will hold a board meeting at 4:00 p.m. in Parlor H. The Association will meet for reception and dinner at 6:30 p.m. in the Sheraton Room. A panel presentation will follow the dinner.

Michigan Branch, American Academy of Pediatrics will hold a dinner-meeting at 6:00 p.m. in the English Room.

WEDNESDAY, MARCH 11, 1959

Michigan Committee on Trauma, American College of Surgeons, luncheon-meeting at 12:00 noon, Sheraton Room, Sheraton-Cadillac Hotel, Detroit. Anyone who is interested is invited to attend.

Cancer Control Luncheon honoring Wendell G. Scott, M.D., of St. Louis, Missouri, is scheduled for 12:30 p.m. in the Pan American Room, Sheraton-Cadillac Hotel.

Symposium on the Depressions, 8:00 p.m., Grand Ballroom.

Moderator:
RAYMOND W. WAGGONER, M.D., Ann Arbor
Director, The Neuropsychiatric Institute, University Hospital

Panelists:
JACK R. EWALT, M.D., Boston, Massachusetts
Superintendent of the Massachusetts Mental Health Center; Professor of Psychiatry, Harvard Medical School

CAPTAIN GEORGE N. RAINES, M.C., Washington, D. C.
Chief of Psychiatry in Navy and Chairman of Department of Psychiatry, Georgetown University Medical School

"Depression as an Antecedent to Medical Disease"

ARTHUR H. SCHMALE, M.D., Rochester, New York
Assistant Professor of Medicine and Psychiatry, University of Rochester School of Medicine and Dentistry; Markle Scholar in Medicine and Psychiatry.

The significant tendency of the depressive reaction to manifest itself by some type of somatic symptoms, often without apparent evidence of the depression itself, makes this topic one of especial importance to every clinician. Recently depression as a conditioning or precipitating factor for the development of organic disease has been given serious consideration. At the same time, depression as a serious complication of physical disease must always be given due consideration.

THURSDAY, MARCH 12, 1959

Michigan Heart Association, dinner-meeting of Members in the Book-Casino, Sheraton-Cadillac Hotel.

Michigan Proctologic Society will meet in Parlor H of the Sheraton-Cadillac Hotel.

Program

P.M.

5:00 "Reactions of the Gastric Mucosa to Various Stimulii"—a moving picture prepared by Stewart Wolf, M.D., Oklahoma City

5:30 "The Physiology of Digestion" by Ralph Cooper, M.D., Assistant Clinical Professor of Medicine, Wayne State University College of Medicine

6:00 Dinner-meeting in the Sheraton Room

Testimonial Luncheon honoring Pharmaceutical Lecturer Mr. Harry J. Loynd, Detroit, President of Parke, Davis & Co., 12:30 p.m. in the Pan American Room of the Sheraton-Cadillac Hotel (by invitation). The Michigan State Pharmaceutical Association is sponsor.

Awards Luncheon honoring Michigan Doctors of Medicine who are presidents of national medical and health organizations, and to recognize the Annual Awardees of the Michigan State Medical Society, 12:30 p.m., English Room, Sheraton-Cadillac Hotel. To receive awards are: J. Edward Berk, M.D., Detroit, President of American Gastroscopic Society; C. Leslie Mitchell, M.D., Detroit, President of American Orthopedic Association; Herman K. B. Pinkus, M.D., Monroe, President of the Society for Investigative Dermatology; John W. Rebuck, M.D., Detroit, President of the International Reticulo-Endothelial Society; John M. Wellman, M.D., Lansing, President of Frederick A. Coller Surgical Society; W. H. Steffensen, M.D., Grand Rapids, President of the American Society of Plastic and Reconstructive Surgery, and many others.

Milton A. Darling, M.D., and G. Thomas McKean, M.D., of Detroit, are co-chairmen of the Awards Luncheon.

Michigan Epilepsy Center and Association will hold a luncheon-meeting at 12:30 p.m. in the Sheraton Room of the Sheraton-Cadillac Hotel.

Conference for Residents, Interns and Senior Medical Students, 2:30 p.m. to 6:45 p.m. in the English Room of the Sheraton-Cadillac Hotel.

FRIDAY, MARCH 13, 1959

Michigan Heart Association Board of Trustees will meet at 3:00 p.m. in the Sheraton Room, Sheraton-Cadillac Hotel.

* * *

Wayne State University College of Medicine Alumni Association will maintain an Alumni headquarters suite in the Sheraton-Cadillac Hotel during the Michigan Clinical Institute. All alumni, their guests, and friends of Wayne State are cordially invited to visit the headquarters.

PROGRAM OF COLOR MOTION PICTURES

The American Cyanamid Company will again present a motion picture program in the Normandie Room of the Sheraton-Cadillac Hotel.

Program

TUESDAY, MARCH 10—1:00 p.m. to 5:00 p.m.

1:00 Cholecystectomy for Acute Cholecystitis with Cholelithiasis
1:26 Choledochojejunostomy for Restoration of Biliary Drainage
1:58 Emergency Surgery of the Acutely Injured
2:32 Surgical Treatment of Prolapse of the Rectum
3:05 Complicated Appendicitis
3:34 Surgical Problems in Ulcerative Colitis
4:02 Primary, Total, and Near Total Colectomy for Cancer of the Colon
4:33 Adenomatous Polyps of the Colon and Rectum

WEDNESDAY, MARCH 11—9:30 a.m. to 5:00 p.m.

9:30 Small Bowel Resection for Post-Radiation Obstruction
9:57 Total Gastrectomy Using the Abdomino-Thoracic Approach
10:38 Safe and Conservative Treatment of Lesions of the Female Breast
11:12 The Combined Abdominal and Right Thoracic Approach to Carcinoma of the Mid-Esophagus
11:39 Surgilope SP
11:54 The Operative Treatment of Chronic Stasis Ulcers
12:22 Treatment of Thoracic Injuries
12:55 Coarctation of the Aorta
1:26 Cardiac Arrest
1:55 The Story of Renal Calculi
2:29 Technics of Thyroid Surgery
3:00 Gastric Ulcer or Carcinoma, Recognition and Treatment
3:31 Precautions in the Resection of the Colon for Carcinoma
4:02 Lesions of the Fallopian Tube
4:35 Hysterectomy—Three-quarter intrafascial technique

THURSDAY, MARCH 12—9:30 a.m. to 5:00 p.m.

9:30 Pneumonectomy for Carcinoma
10:07 Valvulotomy for Valvular Pulmonic Stenosis
10:36 Relief of Obstruction of Superior Vena Cava by Venous Autografts
11:09 Indications and Technique of Right Hepatectomy
11:45 Gallstone Ileus
12:01 Cholecystectomy and Operative Cholangiography
12:35 Transabdominal Adrenalectomy for Endocrine Disease
1:03 Surgical Anatomy of the Femoral Triangle
1:33 Surgical Treatment of Direct Hernia
2:06 Aneurysms of the Abdominal Aorta
2:34 Exploration of Pancreas for Islet Cell Tumor
3:04 Technical Considerations in Hemipelvectomy
3:32 Surgical Techniques of the Several Types of Skin Graft
4:07 Surgilope SP
4:22 Vaginal Hysterectomy

FRIDAY, MARCH 13—9:30 a.m. to 12:00 noon

9:30 The Diabetic Foot Transmetatarsal Amputation with Delayed Primary Closure
9:55 Early Management of the Severely Burned Patient
10:27 Surgilope SP
10:42 Common Duct Stones
11:12 Surgery of the Adrenal Glands
11:33 The Surgical Treatment of Varicose Veins

EDUCATIONAL SEMINAR

The second annual Educational Seminar sponsored by Michigan State Medical Assistants Society and the University of Michigan Extension Service will be presented Wednesday, March 11, 1959, in the Fort Shelby Hotel, Detroit.

Program

Registration—9 A.M.

Morning Session—10 A.M.

General Assembly
Welcome—DONNA HISLOP, President, MSMAS

Introductions—MARGUERITE WOOLHOUSE, Seminar Chairman

"Women at Work"—LOIS W. HOFFMAN, Research Associate, Research Center for Group Dynamics, the University of Michigan

Afternoon Session—1:30 P.M.

Symposium—"Having Patience with Patients"

Moderator—ROBERT MOULTON, Instructor in Psychology and Psychologist with Counseling Division, The University of Michigan

Participants—MRS. RUTHJANE BLOCK, Lansing
MRS. VIVIAN BRANYAN, Grand Rapids
MRS. CAROLYN HENICK, Lansing
MRS. DORIS MILLER, Williamston

"Psychological Aspects of Physical Illness"—STANLEY SEGAL, Assistant Professor of Psychology and U. S. Public Health Service Grant, and Assistant Chief Counseling Division, Bureau of Psychological Services, The University of Michigan.

MSMAS OFFICERS

President—Miss Donna Hislop, 878 Second St., Muskegon

President-Elect—Mrs. Reta Shedd, 308½ S. Superior, Albion

Recording Secretary—Mrs. Dorothy V. Alison, 87 W. Pearl, Coldwater

Corresponding Secretary—Miss Catherine LaPres, 706 Hackley Bank Bldg., Muskegon

Treasurer—Miss Cecile Rutan, Hanover

Chairman of Seminar—Mrs. Marguerite Woolhouse, 320 Townsend St., Lansing

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at the
MCI Institute

OPERATING ROOM NURSES INSTITUTE

March 11 and 12, 1959

Sheraton-Cadillac Hotel, Detroit, Michigan

Sponsored by
Operating Room Nurses Conference Group
of the
Michigan State Nurses Association
Held jointly with the Michigan Clinical Institute

(All professional registered nurses are invited)

Program

WEDNESDAY, MARCH 11, 1959

A.M.

8:00 **Registration Desk Open** *Mezzanine Floor*

9:00 **Greetings and Introductions** *English Room*

9:15 **"Problems in Pediatric Surgery"**
JACK HERTZLER, M.D., Children's Hospital of Michigan, Detroit
"Pediatric Anesthesia"
SHIRLEY AUSTIN, M.D., Children's Hospital of Michigan, Detroit

11:30 **Luncheon Recess**

VIEW EXHIBITS

P.M. *English Room*

2:15 **"Juvenile Amputation—Surgery and Rehabilitation"**
JAMES A. MACDONELL, M.D., Grand Rapids

3:30 **"Plastic Surgery Problems"**
HAROLD W. JAFFE, M.D., Detroit

4:30 **"Meeting Your Responsibilities"**
MRS. ANNE ZIMMERMAN, R.N., Executive Secretary, Illinois Nurses Association, Chicago, Illinois

THURSDAY, MARCH 12, 1959

A.M.

8:00 **Registration Desk Open** *Mezzanine Floor*

9:00 *English Room*
"Housekeeping in the Operating Room"
EMILY DEMING, Executive Housekeeper, Butterworth Hospital, Grand Rapids
"Inside Construction of the Operating Room"
ADOLPH H. ROESSLING, Architect, Smith, Hinchman and Gryls, Detroit

11:30 **Luncheon Recess**

VIEW EXHIBITS

P.M.

1:30 *Harper Hospital*
"How Is Nursing Education Preparing Students for Nursing Service Positions in Operating Rooms?"
Moderator:
MRS. HARRIET BELL, R.N., Assistant Director of Nursing, Operating Room, Harper Hospital, Detroit
Panel Members:
MILDRED QUACKENBUSH, Assistant Professor, University of Michigan School of Nursing, Ann Arbor
MRS. ELEANOR PETERSON, R.N., Instructor, Ford Hospital, Detroit
ELEANOR TOURTILLOTT, R.N., Coordinator for Education of Nursing, Henry Ford Community College, Dearborn
MARY WEINSCHREIDER, R.N., Director of Nursing, McLaren Hospital, Flint

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REFRESHER COURSE
March 10-11-12-13

VOTE

APRIL 6, 1959

The results of the Spring Election 1959 mean much to the people: *They mean more to the professional man.*

By their votes, the citizens of Michigan will go far toward directing the *policies* of education in our public schools and in Michigan's three major State Universities.

Two vacancies on the University of Michigan Board of Regents and two on the Michigan State University governing board (State Board of Agriculture) will be filled. In addition, all six members of the newly-created Wayne State University Board of Governors will be chosen.

Doctor, make yourself heard!

VOTE

APRIL 6, 1959

SCIENTIFIC CONTRIBUTIONS OF THE MCI TECHNICAL EXHIBIT

The technical exhibit is an essential part of the educational process of Michigan Clinical Institute. A considerable proportion of medical research is sponsored by many institutions and manufacturers whose displays are part of our exhibit. Year in and year out, they make substantial contributions to progress in Medicine. This year, they offer many new ideas in therapy and techniques.

Doctors of medicine are invited and urged to inspect the exhibits, to examine products and services, and to question the exhibitors on "what's new for me to use?" Discuss with these well-trained and informed exhibitors the uses of the products of their laboratories. Sample their professional knowledge, which is an adjunct to the scientific talks and other presentations of the Michigan Clinical Institute, all congregated in one spot for you, Doctor, so that you may serve the public better.

MCI Technical Exhibits

(Listed Alphabetically)

Abbott Laboratories
North Chicago, Ill. **Booth No. 33**

Exhibit will feature the Abbott Laboratories Antibiotic Triad—three products which together provide control of all coccal infections: Erythrocin® Stearate, Compocillin®-VK and Spontin®. Also shown will be Abbott's unique new "metered release dose form" products, Tral Gradumets® and Desoxyn Gradumets®, plus a selection of other Abbott specialties.

A. S. Aloe Company
St. Louis, Mo. **Booth No. 62**

The Bouffard brothers, Tom and Wally, will be on hand to greet you once again. Why not drop by and see the latest surgical supplies and equipment?

American Cyanamid Company
Danbury, Conn. **Booth No. 49**

American Cyanamid Company, Surgical Products Division, 1 Casper Street, Danbury, Conn.—Manufacturers of DAVIS & GECK Sutures and other surgical products; VIM HYPODERMIC NEEDLES, SYRINGES and SPECIALTIES. Featuring SURGILAR and SURGILOPE SP—New non-glass suture packagings; the new ELLIPTRON Atraumatic Needle, Surgaire,-Sterile Deodorant Spray Ointment and Topasil, a silicone skin protectant; VIM Biegeleisen Biopsy Needles, and CURON elastic foam bandage, and VIM SURGICAL LANCET.

American Ferment Company, Inc.
New York, New York **Booth No. 50**

Have you tried TOD'L, the sudsing, emollient, antibacterial skin cleanser for the treatment and prevention of various skin affections? Also featured: CARROID AND BILE SALTS TABLETS as a logical complement in modern methods of therapy, FALGOS buffered analgesic, ALCAROID ANTACID, and SUPLIGOL for non-surgical biliary problems.

American Hospital Supply Corpn.
Evanston, Illinois **Booth No. 38**

Exhibiting: The new *Sensitex* Surgical Glove—minimum cost, maximum sensitivity created by the inverse-dip process; a dramatic new approach to surgical drapes for one time use; aerosol sprays for routine surgical application; anti-infection shoe covers for use in the presence of explosive gases; new items of general interest to surgical personnel.

Atlas Pharmaceutical Laboratories, Inc.
Detroit, Michigan **Booth No. 27**

Ayerst Laboratories
Chicago, Ill. **Booth No. 54**

"MUREL," a new potent antispasmodic, will be featured at the Ayerst booth. "MUREL" provides unique three-way spasmolytic action in one molecule: *anticholenergic*, to inhibit transfer of parasympathetic stimuli to effector cells of the smooth muscle; *musculotropic*, to act directly on smooth muscle; *ganglionoplegic*, to exert a definite but transient ganglion block.

Baker Laboratories, Inc.
Cleveland, Ohio **Booth No. 10**

You are invited to visit our booth where Baker's Modified Milk and Varamel, two successful products for infant feeding, are on display.

Baker representatives will be glad to discuss with you the special features of Baker Milk products which promote better tolerance, less colic, better gain and improved tissue turgor for bottle-fed infants.

Coca-Cola Company
Atlanta, Ga. **Booth Nos. 6-7**

Ice-cold Coca-Cola served through the courtesy and cooperation of the Detroit Coca-Cola Bottling Company, Detroit, Michigan, and The Coca-Cola Company.

Cunningham Drug Stores, Inc.
Detroit, Mich. **Booth No. 34**

Pharmacists from Cunningham's and Kinsel's will staff a display featuring the many new prescription pharmaceuticals available at Cunningham's and Kinsel's Prescription Departments.

Our services available to physicians will be on display, such as prescription blanks and product information.

Desitin Chemical Company
Providence, R. I. **Booth No. 16**

DESITIN OINTMENT: For treatment of burns, ulcers, diaper rash, abrasions, etc.

DESITIN POWDER: Relieves chafing, sunburn, diaper rash, etc.

DESITIN SUPPOSITORIES and RECTAL OINTMENT: Relieve pain and itching in uncomplicated hemorrhoids, fissures.

DESITIN BABY LOTION: Protective, antiseptic.

DESITIN ACNE CREAM: A non-staining, flesh-tinted "Medicream" for the treatment of Acne Vulgaris.

DESITIN COSMETIC and NURSERY SOAP: Supermild.

Detroit X-Ray Sales Company
Detroit, Mich. **Booths Nos. 65-66**

We wish to extend a cordial invitation to all members of the Michigan Clinical Institute to visit our booth, and view the completely new line of X-Ray Equipment—designed in the contemporary manner by the Mattern X-Ray Division of Land Air, Inc. We will exhibit both Mobile and Tilt Table Units available in power ranges from 30 MA to 200 MA.

Doho Chemical Corporation
New York, N. Y. **Booth No. 56**

DOHO CHEMICAL CORPORATION is pleased to exhibit:

TURGASEPT: Ionic deodorizer aerosol spray, neutralizes odor immediately without floral masking or substituting a new odor. It is highly bacteri*cidal* and fungi*cidal* and was primarily formulated for use in hospitals, nursing homes, and animal clinics; however, can be used in any type malodor condition;

AURALGAN: Otitis Media and removal of Cerumen;

OTOSMOSAN: Fungicidal and Bactericidal in the suppurative and aural dermatomycotic ears;

RHINALGAN: Nasal decongestant free from systemic or circulatory effect;

LARYLGAN: Throat spray and gargle for infectious and non-infectious sore throat involvements;

RECTALGAN: For relief of pain and discomfiture in hemorrhoids pruritus and perineal suturing;

DERMOPLAST: An Aerosol Spray for surface pain, burns and abrasions; Obs. & Gyn. use.

Eaton Laboratories, Inc.
Norwich, N. Y. **Booth No. 45**

Furoxone® (brand of furazolidone) Liquid and Tablets solve acute diarrheal disease problems, swiftly relieve symptoms, rapidly destroy bacterial pathogens (bactericidal rather than bacteriostatic), succeed where others fail against the enteric "problem pathogens"—increasingly prevalent, refractory strains of Staphylococcus, Escherichia, Salmonella and Shigella without creating new problems.

Ferndale Surgical, Inc., Division
J. F. Hartz Company
Ferndale, Mich. **Booth No. 55**

New surgical and diagnostic instruments. Emphasis on disposable products. New drug products, prepacked, prelabeled, precounted. Special formulas: ask for quotations. Pick up 1959 edition of DOMUS MEDICA (drug and supply catalog for doctors' offices), and register to receive our monthly FERNDALE FLASH.

C. A. Fisher & Sons
Toledo, Ohio **Booth No. 11**

Your ZIMMER distributor, C. A. Fisher & Sons, extends a cordial invitation to visit their booth where the latest in Fracture Equipment and Appliances will be on exhibit. Of special interest is the new FAS-TRAC Bandage for skin traction.

E. Fougera & Company, Inc.
Hicksville, N. Y. **Booth No. 28**

You are invited to visit the Fougera Exhibit and discuss our products with medical service representatives. For your convenience, all literature and sample supplies will be sent to your office.

Fuller Pharmaceutical Company
Minneapolis, Minn. **Booth No. 9**

Tucks, soft cotton flannel pads medicated with dilute witch hazel and glycerin, are featured at the Fuller exhibit. You'll find Tucks effective and convenient in the management of pruritus ani, diaper rash, anorectal surgical wounds, post-partum hemorrhoids, and many other conditions frequently encountered in general practice. A supply for family use will gladly be sent on request.

Geigy Chemical Corporation
Yonkers, N. Y. **Booth No. 74**

GEIGY PHARMACEUTICALS cordially invites members and guests of the association to visit its technical display.
Information on products valuable in the therapy of rheumatic, metabolic, dermatologic and cardio-vascular diseases will be presented by personnel in attendance.

Gray Audograph Company
Detroit, Mich. **Booth No. 5**

Exhibit will feature Key Noter Gray Audograph.

Hack Shoe Company
Detroit, Michigan **Booth No. 3**

Forty-three years of service to the profession is marked this month by these devotees of proper shoes, correctly fitted.
Regular shoes as well as supportive types will be exhibited, along with those fitted ON SPECIFIC PRESCRIPTION ONLY.
RIPPLE® Sole shoes will round out the Hack Shoe Company exhibit.

Health Insurance Council
New York, N. Y. **Booth No. 15**

Our exhibit is designed to provide general information on health insurance as underwritten by insurance companies. In addition, it also makes available information on uniform claim forms for use by doctors and hospitals in support of health insurance claims.

G. A. Ingram Company
Detroit, Mich. **Booth Nos. 67-68**

THE G. A. INGRAM COMPANY will display new instruments plus diagnostic equipment for office procedure and a complete line of physiotherapy equipment.

A. Kuhlman & Company
Detroit, Mich. **Booth No. 32**

In addition to many new items in the surgical and diagnostic instrument field, we are showing the new Birtcher No. 300 Electrocardiograph. This two speed ECG has many new features never before available in a direct writing Electrocardiograph.

Lederle Laboratories
Pearl River, N. Y. **Booth No. 35**

Eli Lilly and Company
Indianapolis, Ind. **Booth Nos. 63-64**

You are cordially invited to visit the Lilly exhibit located in Booth Nos. 63 and 64. The Lilly sales people in attendance welcome your questions about Lilly products and recent therapeutic developments.

J. B. Lippincott Company
Philadelphia, Pa. **Booth No. 70**

J. B. Lippincott Company presents, for your approval, a display of professional books and journals geared to the latest and most important trends in current medicine and surgery. These publications, written and edited by men active in clinical fields and teaching, are a continuation of more than 100 years of traditionally significant publishing.

P. Lorillard Company
New York, N. Y. **Booth No. 1**

P. Lorillard Company invites you to visit the Kent Cigarette Exhibit.
We are presenting the Story of Kent Cigarettes with the exclusive, new Micronite filter, which gives you rich taste with less tars and nicotine in the mainstream smoke than any other leading filter brand.
A table cigarette box with your signature in gold will be a pleasant souvenir of your visit to the convention.

Maico Hearing Service
Detroit, Mich. **Booth No. 69**

The new Maico Hearing Aid weighing less than one-half ounce is so small that the entire unit consisting of transmitter, microphone, receiver, battery and ear mold is worn in the ear. A complete line of instruments to take care of cases from the borderline to the profoundly deaf.
Ninety per cent of all precision hearing test instruments used in America by ear physicians are Maico.

Marion Laboratories, Inc.
Kansas City, Mo. **Booth No. 59**

ANASORB—a hematinic that includes Sorbit, a drug which aids in the absorption of iron and B_{12}; DUOTRATE, DUOTRATE 45, and DUOTRATE with phenobarbital—Marion's long-acting coronary vasodilators containing pentaerythritol tetranitrate and employing a new reliable release principal are displayed, as well as OS-CAL, OS-VIM, OS-feo-CAL, OS-feo-

VIM, and OS-QUIN—prenatal products utilizing oyster shell calcium.
Each member and guest of the Michigan Clinical Institute is invited to visit the Marion booth, receive a friendly smile, a sincere "Welcome Doctor," and have a pleasant and informative discussion of our products with the Marion Men.

Mead Johnson & Company
Evansville, Ind. **Booth Nos. 71-72**

The Mead Johnson exhibit has been arranged to give you the optimum in quick service and product information. To make your visit productive, specially trained representatives will be on duty to tell you about their products.

Medco Products Company
Tulsa, Okla. **Booth No. 31**

Presenting the MEDCO-SONLATOR. Providing a new concept in therapy by combining muscle stimulation and ultra sound simultaneously through a SINGLE Three-Way Sound Applicator.
The MEDCO-SONLATOR is a distinct advance in the effectiveness of physical therapy in your office or hospital. A few minutes spent in our booth should prove of value to your practice.

Medical Protective Company
Fort Wayne, Ind. **Booth No. 22**

The Medical Protective Company, originator of Professional Protection Exclusively, now in its sixtieth year, provides unexcelled coverage in ANY claim or suit for damages based on professional services rendered or which should have been rendered, plus unparalleled experience from the successful handling of some 78,000 claims and suits in the professional liability field.

Merck Sharp & Dohme
Philadelphia 1, Pa. **Booth No. 25**

A new and very promising adrenocortical steroid is featured at the Merck Sharp & Dohme booth. "DECADRON" dexamethasone possesses all the basic actions and effects of other glucocorticoids but in different degree. Its anti-inflammatory activity is more potent on a weight basis than any other known glucocorticoid. Electrolyte imbalance is not ordinarily a therapeutic problem. Neither abnormal salt and water retention nor potassium excretion are discernible in most patients receiving therapeutic dosages. In other respects, also, "DECADRON" is generally well tolerated.
"DIURIL"—a diuretic compound that possesses favorable biologic properties common to both the mercurial preparations and the carbonic anhydrase inhibitors is also of interest. "DIURIL" acts essentially without toxic effects or other disadvantages. Following a single oral dose, "DIURIL" produces effects within two hours which last for 6 to 12 hours. It is repeatedly effective when administered continuously once or twice daily for a long period.
Technically trained personnel will be present to discuss these and other subjects of clinical interest.

Meyer and Company
St. Clair Shores, Mich. **Booth No. 48**

New concepts relating to the etiology of arteriosclerosis and atherosclerosis according to the research work done by Prof. Hans Selye, University of Montreal, Institute of Experimental Medicine and Surgery, have attracted the attention of Medicine toward the application of Magnesium in the prevention of these diseases. ATHEMOL and the latest clinical data on this product in therapy of these two diseases will be brought up at the exhibit of Meyer and Company.

Michigan Medical Service
Detroit, Mich. **Booth No. 4**

You are cordially invited to visit the Michigan Medical Service booth to obtain current information regarding Michigan Medical Service (Blue Shield). Our representatives will gladly visit with you and answer any questions you may have with regard to your Blue Shield Plan.

Milex Products
Oak Park, Mich. **Booth No. 14**

Milex Company offers the physician a unique line of Gynecic Specialties among which are Milex Folding Pessaries, Crescent Diaphragm, Oligospermia Cups, Nutrient Sperm Douche, Basal Thermometers, Doyle Spoon (for proconception), Cancer Detection Instrument Unit, Cold Conization Knife for Subsequent Biopsy of the Cervix and a "Doctor's Marital Guide for Patients" (regular and rhythm editions).

Miller Surgical Company
Chicago, Ill. **Booth No. 47**

MILLER SURGICAL COMPANY, Chicago, Ill.: See the Miller Electro-Surgical Units and Accessories such as Snares, Suction-Coagulation attachments, Grasping Forceps, etc. Also a complete line of Diagnostic Equipment consisting of Illuminated Otoscope, Ophthalmoscope, Eyespud with Magnet, Transillumination Lamps, Mirror Headlite, Vaginal Speculum with Smoke Ejector and Gorsch Operating Scopes and stainless steel Proctoscopes, all sizes, with magnification.

C. V. Mosby Company
St. Louis 3, Mo. **Booth No. 61**

New knowledge, new ideas, new research and technique—all are waiting for you in the newest Mosby books for 1958 and 1959. Come in. Look over these books at your leisure and convenience. If you wish his assistance, our experienced representative will be happy to discuss any book with you.

MSMS Life, Health and Accident Insurance Program
Lansing, Michigan **Booth No. 58**

You are cordially invited to stop at Booth No. 58 and discuss the MSMS Life, Health and Accident Insurance Program.
Representatives of the MSMS carriers will be present to answer questions concerning your MSMS group coverage.

V. Mueller and Company
Chicago, Ill. **Booth No. 40**

V. Mueller & Company (Chicago) features an interesting display of special and standard instruments for surgery—including the superb new V. Mueller Signature line of forceps. Some of the more important newer aids for OR personnel are included, among them the popular Kidd Instrument Rack. Your Michigan V. Mueller Representatives, Mr. Bob Eggen, and Mr. Jerry White, will welcome your visits and inquiries.

Parke, Davis & Company
Detroit, Mich. **Booth Nos. 42-43**

Medical Service members of our staff will be in attendance at our booth to discuss important Parke-Davis specialties which will be on display.

Pet Milk Company
St. Louis, Mo. **Booth No. 44**

We will be pleased to have you stop and discuss the variety of time-saving material available to busy physicians. Our representatives will be on hand to discuss the merits of "Pet" Evaporated Milk for infant feeding and INSTANT "Pet" Nonfat Dry Milk for special diets.

Pfizer Laboratories
Brooklyn, N. Y. **Booth No. 39**

Visit the Pfizer display which features Cosa-Tetracyn, Cosa-Terramycin and Cosa-Signemycin, Pfizer's glucosamine potentiated antibiotics. The Pfizer Representative will be pleased to provide you with information on Diabinese—a new oral hypoglycemic agent, and Daricon—a new anticholinergic compound possessing a high order of therapeutic effectiveness and prolonged duration of action.

Purdue Frederick Company
New York, N. Y. **Booth No. 46**

The Purdue Frederick Company will present:
CERUMENEX: Cerumenolytic for the quick removal of excessive cerumen. Contains Cerapon, a new surfactant, with propylene glycol and chlorbutanol.
SENOKOT: Neuroperiastaltic constipation corrective containing the total senna glycosides.
SENOKAP: Stool softener, combining the action of dioctyl sodium sulfosuccinate with that of Senokot.
SENOKOT WITH PSYLLIUM: Combines the bulk effect of psyllium with Senokot.
SENOBILE: Combines the bile salt effect with Senokot.
PROBILAGOL: Cholecystokinetic containing d-glucitol and homatropine methylbromide. For biliary disease therapy.

Randolph Surgical Supply Company
Detroit, Mich. **Booth Nos. 12-13**

Randolph Surgical Supply Company will have some unusual new items on display that should be of interest. Our booth will be staffed with competent personnel to answer any questions regarding the many manufacturers we represent.

R. J. Reynolds Tobacco Company
Winston-Salem, N. C. **Booth No. 26**

Welcome to the R. J. Reynolds Tobacco Company Exhibit! You are cordially invited to receive a cigarette case (monogrammed with your initials) containing your choice of CAMEL, WINSTON Filter, Menthol Fresh SALEM, or CAVALIER King Size Cigarettes.

A. H. Robins Company, Inc.
Richmond, Va. **Booth No. 23**

The new antihistaminic cough preparation DIMETANE EXPECTORANT combining Dimetane, glyceryl guaicolate and nasal decongestants is featured at the Robins exhibit. DIMETANE EXPECTORANT-DC (with dihydrocodeinone) is the companion preparation recommended when more cough suppressant action is indicated. The antirheumatic PABALATE formulations are also shown as well as ROBAXIN and the analgesics in the PHENAPHEN "family."

Wm. H. Rorer, Inc.
Philadelphia, Pa. **Booth No. 36**

MAALOX, the non-constipating, pleasant tasting antacid and the new double strength Tablet Maalox No. 2 are featured. Other product highlights are FERMALOX, the new buffered iron tablet, FERMATIN, a dynamic new tonic in a capsule for under-par patients and ASCRIPTIN, a rapid acting professional salicylate. Our representatives will be on hand to answer questions about these and other Rorer products.

Ross Laboratories, Inc.
Columbus, Ohio **Booth No. 29**

As adjunct to the physician's oral reassurance of anxious new parents the ROSS DEVELOPMENTAL Series offers visual materials (INDIVIDUAL CASE RECORDS, BEHAVIORAL DEVELOPMENT FOLDERS, EMOTIONAL DEVELOPMENT BOOKLETS). Current concepts stress the development of the infant as a whole being. Physiologic infant feeding may be discussed with your SIMILAC Representative.

The Rupp and Bowman Company
Highland Park, Mich. **Booth No. 51**

Once again the Rupp and Bowman Company welcomes the many doctors to visit our booth. Our representatives will be on hand to answer questions and show you new items.

Sanborn Company
Cambridge, Mass. **Booth No. 19**

New ELECTROCARDIOGRAPHS of advanced design and function, as well as latest models of other instruments for diagnostic use, will be displayed and demonstrated at the Sanborn Company Booth No. 19. Demonstrations and/or data will also be available on Sanborn instruments for biophysical research—single and multi-channel recording systems, monitoring oscilloscopes and physiological transducers.
Qualified Sanborn representatives will be pleased to answer questions and assist you with technical problems.

Sandoz Pharmaceuticals
Hanover, N. J. **Booth No. 17**

Sandoz Pharmaceuticals cordially invites you to visit our display at Booth No. 17.
BELLERGAL—Space Tabs assures around the clock control of functional complaints (example—menopause symptoms) in the periphery where they originate.
FIORINAL—a new approach to therapy of tension headache and other head pain due to sinusitis and myalgia.
CAFERGOT PB—the most effective oral medication for the relief of migraine headache with G.I. disturbance accompanied by tension.
Any of our representatives in attendance will gladly answer questions about these and other Sandoz products.

W. B. Saunders Company
Philadelphia, Pa. **Booth No. 2**

Harold Rozema will again be on hand at the Saunders booth. New titles of special interest include: Current Therapy 1959; De Palma: Management of Fractures and Dislocations; Wohl: Long-Term Illness; Roberts: Difficult Diagnosis; Duncan: Diseases of Metabolism; de Takats: Vascular Surgery; Mc Laughlin: Trauma; and the ever-new Medical, Surgical and Pediatric Clinics of North America.

Schering Corporation
Bloomfield, N. J. **Booth No. 20**

Schering welcomes the doctors of Michigan. We cordially invite you to visit the Schering booth where representatives will be on hand to discuss with you the most recent advances in tranquilizer, antihistaminic and corticosteroid therapy. Products such as Schering's TRILAFON, POLARAMINE and DERONIL will be featured.

Julius Schmid, Inc.
New York, N. Y. **Booth No. 8**

An interesting and informative exhibit featuring IMMOLIN Cream-Jel for use without a diaphragm; RAMSES Flexible Cushioned Diaphragm; RAMSES Vaginal Jelly; VAGISEC Jelly and Liquid for vaginal trichomoniasis therapy; and XXXX (Fourex) Skin Condoms, RAMSES and SHEIK Rubber Condoms for the control of trichomonal re-infection.

Institute of Public Information
New York, N. Y. **Booth No. 53**

CONGENERS: CHEMISTRY-PHARMACOLOGY
Congeners (fusel oil, aldehydes, acids, etc.) are compounds found in all alcoholic beverages that provide the taste, bouquet and color. In high concentrations, however, certain congeners may produce toxic effects. This exhibit presents the results of quantitative chemical analyses of congeners found in six leading types of distilled spirits along with correlated acute oral toxicity studies obtained on rats. (Pertinent literature will be available.)

G. D. Searle & Company
Chicago, Ill. **Booth No. 21**

You are cordially invited to visit the Searle booth where our representatives will be happy to answer any questions regarding Searle Products of Research.
Featured will be Dartal, the new tranquilizing agent which controls activities associated with anxiety states and other neuroses; Enovid, the new synthetic steroid for treatment of various menstrual disorders; Zanchol, a new biliary abstergent; Nilevar, the new anabolic agent, and Rolicton, a new safe, nonmercurial oral diuretic.
Also featured will be Vallestril, the new synthetic estrogen with extremely low incidence of side reactions; Pro-Banthine and Pro-Banthine with Dartal, the standards in anti-cholonergic therapy; and Dramamine and Dramamine-D, for the prevention and treatment of motion sickness and other nauseas.

Smith, Kline & French Laboratories
Philadelphia, Pa. **Booth No. 30**

S.K.F. features (1) Temaril® Tablets and Syrup, the oral medication specifically for the relief of itching, both mild and severe; (2) Vi-Sorbin®, the potent modern tonic that contains B_{12}, B_6, iron and folic acid, and incorporates the Absorption Enhancement Factor, D-Sorbitol; (3) Compazine®, the tranquilizer and antiemetic with minimal side effects; and (4) Thorazine®, one of the fundamental drugs in medicine.

E. R. Squibb & Sons
New York, N. Y. **Booth No. 57**

E. R. Squibb & Sons has long been a leader in development of new therapeutic agents for prevention and treatment of disease. The results of our diligent research are available to the medical profession in new products or improvements in products already marketed.
At Booth No. 57, we are pleased to present up-to-date information on these advances for your consideration.

Standard Process Laboratories
Detroit, Mich. **Booth No. 60**

Standard Process Laboratories are manufacturers of Physiological Nutritional Adjuncts and Cytotrophic Extracts. CARDIOTROPHIN, the most spectacular of the Cytotrophics (heart protomorphogen), can improve a decompensated heart within minutes. This can be easily proved by the use of the Endocardiograph. Similarly, CARDIO-PLUS, a combination of Cardiotrophin with Vitamin G, as a vaso dilator and Vitamin E_2, a specific for angina pains, is also outstanding for coronary thrombosis, angina, tic-tac rhythm, et cetera. ANTI-GASTRIN is the most recent of the new products; it is a specific for Peptic, Gastric, Duodenal Ulcers and Ulcerative Colitis.

The Stuart Company
Pasadena, Calif. **Booth No. 37**

The Stuart representatives will welcome the opportunity to discuss with physicians the latest pharmaceutical developments of The Stuart Company. Among the products that will be featured, will be our line of Softab products which melt quickly on the tongue and are so pleasant tasting.

Testagar & Company, Inc.
Detroit, Mich. **Booth No. 24**

Stop by and see Q CAPS-AMODEX: the newest concept in time release capsules. It's clever! It's unique! Q CAPS-AMODEX for high level anorexigenic activity without excitation. Q CAPS-AMODEX insures accurate time release.

S. J. Tutag & Company
Detroit, Mich. **Booth No. 41**

S. J. Tutag & Company will present "GERITAG." Recent publications have attested to the advantage and efficacy of the 20 to 1 ratio of androgen to estrogen in the treatment of the ever present "aging" problem. Also exhibited will be "QUADAMINE" Granucaps: A sustained release capsule for use in obesity containing appetite depressant, sedation and full vitamin-mineral supplementation.

The Upjohn Company
Kalamazoo, Mich. **Booth No. 18**

Professional representatives of The Upjohn Company are eager to contribute to the success of your meeting. We are here to discuss with you products of Upjohn research that are deigned to assist you in the practice of your profession. We solicit your inquiries and comments.

U. S. Vitamin Corporation
New York, N. Y. **Booth No. 73**

On display—ARLIDIN, the safe vasodilator drug with three unique pharmacologic actions: (1) dilates predominantly small blood vessels of skeletal muscle, (2) increases cardiac output without significant increase in pulse rate, (3) promotes greater circulating blood volume. Thus, ARLIDIN (Nylidrin HCl. NNR) is indicated in treating intermittent claudication in arteriosclerosis obliterans, thromboganiitis obliterans, and diabetic vascular disease; also effective in Raynaud's Syndrome and ischemic ulcers.

Wyeth Laboratories
Philadelphia, Pa. **Booth No. 52**

Wyeth will feature:
ZACTIRIN®, containing Wyeth-developed ethoheptazine citrate and acetylsalicylic acid for the management of pain. ZACTIRIN is a well-tolerated, nonnarcotic analgesic, highly effective in the patient who requires something stronger than ASA to relieve pain, but less potent than a narcotic.
PROZINE*, (meprobamate and promazine hydrochloride, Wyeth), indicated in emotionally disturbed patients. Because of its simultaneous action on both the thalamic and hypothalamic areas of the brain, PROZINE produces more specific control of the patient displaying symptoms of anxiety and tension accompanied by motor excitability.

*Trademark.

Michigan's Department of Health

Albert E. Heustis, M.D., Commissioner

IMMUNIZATION SCHEDULES

Considerable confusion seems to exist regarding the need for strict adherence to recommended intervals between doses of antigens. Some apparently hold them so sacred that if a child misses his second or third dose by even a short interval he is told that he must start the series over again. Actually that is not so; the suggested intervals are minimum and not maximum and are a compromise between obtaining optimum protection and obtaining reasonably adequate protection.

It is an immunologic axiom that a first experience with a non-living antigen results in little or no rise in protective antibodies but does result in sensitizing the immunity-producing mechanism so that future experiences with the same antigen will result in a prompt and generally marked rise in protective antibodies.

An interval of a month between doses is generally the shortest period that will result in a sufficient degree of sensitization of the immune mechanism so that the second dose will elicit a reasonably adequate level of protection.

A better antibody response would be obtained if the interval between doses were lengthened to several months but during this interval the child faces possible exposure to disease with less than a protection level of antibody. To keep this hazardous interval at a minimum and not sacrifice too much in antibody response to the second dose we compromise between an optimum and an adequate response and recommend four to six weeks between the first and second doses of antigen. It is the risk of contracting disease between doses of antigen that results in the compromise between reasonable protection and optimum protection.

The recommended dosage schedule for poliomyelitis is a case in point. Poliomyelitis has a well-defined cycle of high and low incidence. The period of low incidence extends over a period of eight months, i.e., November through June. A reasonable procedure to obtain optimum protection with a minimum risk to the patient would be to start the vaccine series early in November. Two doses given a month apart will give sufficient antibody response to justify lengthening the period between the second and third doses to seven months.

This longer interval results in an increased sensitization of the immunity producing mechanism and there is a much greater increase in antibodies in response to the third dose than would have occurred with a shorter interval. A still longer interval would result in a better response but the objective is to give the three-dose series within the eight-month period of low incidence.

It is probably euphoric to think that paralytic poliomyelitis can be wiped out completely. However, through immunization, epidemics can be prevented and it can become a relatively rare disease.

POLIOMYELITIS IN MICHIGAN—1958

In 1958, Michigan had a high number of reported cases of poliomyelitis, paralytic and non-paralytic, exceeded only by West Virginia on a rate per 100,000 basis. The major portion of Michigan's cases were concentrated in the southeastern part of the State. Two southwestern Michigan counties and at least one in the Upper Peninsula, however, had an incidence comparable to that in the southeastern area. This experience again points out the cyclic unpredictable character of the disease. It also gives impressive evidence of the value of three properly spaced doses of poliomyelitis vaccine.

Non-Paralytic Poliomyelitis

The picture of poliomyelitis reporting is today becoming confused by the varied considerations given to non-paralytic disease. The applications of virology to the diagnosis of these cases indicates that many are actually due to other viruses and therefore should not be reported as non-paralytic poliomyelitis.

Paralytic Poliomyelitis

The vaccine has made it possible to prevent paralytic poliomyelitis. For some diseases, the unvaccinated gain a certain measure of protection from those that are vaccinated. This does not seem to be true of poliomyelitis. To be absolutely certain all must be protected; however, statistically, certain age groups are more vulnerable.

Of the 118 cases of paralytic poliomyelitis reported in 1957, forty-four (37 per cent) were in the zero to four age group. In 1958, of the 547 paralytic cases reported 293 (56 per cent) were in this same age group. Nationwide surveys show this age group to have a dangerously low immunization status. The nineteen to thirty year old male patient represents another group in which paralytic poliomyelitis has been comparatively high and which is also correlated with a low immunization status.

The elementary school age children are the best protected group. We need to continue to emphasize vaccination for them. The group of greatest need in Michigan and apparently in most of the nation is the pre-schoolers, and particularly the infant in arms. The infant needs poliomyelitis vaccine as soon as he can be given any other immunizations. The others, if they haven't had vaccine, should be started at once and followed up until they have adequate protection.

Most college graduates stay in their chosen professions throughout their working lives, according to a recent survey of Wayne State University alumni.

The study showed 64 to 86 per cent of the graduates of four Wayne colleges remaining in the professions for which they had trained.

when psychic symptoms distort the picture

Dartal helps the patient reintegrate his mental processes

In everyday office practice as well as under hospital conditions Dartal is consistent in its effects as few tranquilizers are.

Dartal promotes emotional balance

Dartal effectively decreases or relieves emotional hyperactivity and psychomotor excitement.

Dartal is unusually safe

At a recent symposium, leading hepatologists* concluded that Dartal is not icterogenic or hepatotoxic.

Dartal is effective at low dosage

One 2-mg. tablet q.i.d. or one 5-mg. tablet t.i.d. in neuroses; one 10-mg. tablet t.i.d. in psychoses.

a superior psychochemical
for the management of both major and minor emotional disturbances

Dartal®

dihydrochloride — brand of thiopropazate dihydrochloride

SEARLE

*A Symposium on the Pharmacologic Effects of Dartal on the Liver, Chicago, Searle Research Laboratories, Feb. 7, 1958.

SPONTIN IN SERIOUS

A Special Report from Abbott
to the Medical Profession
on a Year's Clinical Experience
with SPONTIN®
(Ristocetin, Abbott)

In a Spanish province, a patient lay dying of endocarditis. A short wave radio appeal for SPONTIN was intercepted by a Baltimore physician. The antibiotic was immediately flown to this faraway land, and 10 days later—the patient had recovered.

In Chicago, a moribund patient had been administered 18 combinations of 10 different antibiotics without success. Involved was a hospital-acquired staphylococcal pneumonia—plus complications. SPONTIN was substituted and the patient lived.

A five-week-old infant was critically ill with staphylococcal enteritis. Treatment failures included erythromycin and chloramphenicol. Three days of SPONTIN saved this life. The list is long and impressive and it grows daily.

Recently, a study[1] was made of serious and resistant staphylococcal infections reported to Abbott Laboratories. Many of these cases had serious complicating diseases—many were moribund, or almost so, at the time SPONTIN was started. Yet, out of the 160 staphylococcal cases studied, 93 were reported cured and 38 improved after the administration of SPONTIN.

Out of the total of 251 patients with severe infections caused by gram-positive or mixed organisms, 149 were reported cured and 53 others improved. And the record for pediatric practice was every bit as good.

Additionally, SPONTIN continues to exhibit exceptional bactericidal activity against coccal infections[2]. And, according to another study, SPONTIN provides successful short-term therapy in endocarditis[3].

901066

Only last October, at the Antibiotics Symposium in Washington, D. C., a panel of six leading antibiotic experts placed SPONTIN at the top of all other commercially-available antibiotics for treating serious staphylococcal infections. Also, six papers—all dealing with the effectiveness of ristocetin (SPONTIN®) in treating staphylococcal infections—were presented at the Symposium.

One of the most encouraging aspects of the year's literature on SPONTIN is the increasing testimony to its safety. As the months have passed and cases have accumulated by the hundreds, it has become apparent that careful attention to dosage recommendations has practically eliminated toxicity and side effects as serious obstacles to therapy. Also, recent improvements have been made in the manufacture of SPONTIN; the drug is now made from pure crystals.

A recent report[4] in the Journal of the American Medical Association concluded, "It is our opinion that, if proper precautions are observed, ristocetin is a [well tolerated] and potent agent to employ in the treatment of staphylococcal infections." And in another study, after successfully treating 28 patients with a variety of staphylococcal infections, the authors reported[5], "No serious complications were noted."

Few more dramatic records have been written in such a short space of time. SPONTIN has proved itself to be a good answer, perhaps the best answer at present, to the resistant staphylococcal problem—and of real value in other serious coccal infections. It may well be your answer when you're confronted with a serious infection.

Abbott

STAPHYLOCOCCAL INFECTIONS

Excerpts from Reports Read at the Antibiotics Symposium

Spontin In Treating Severe Respiratory Infections —"In 13 of 20 patients the results were excellent, with clinical response being evident within one to four days after institution of therapy. In three additional patients, there was some degree of improvement in pneumonic processes superimposed on tuberculosis in two cases and on pulmonary neoplasm in one. In all other cases, serious antecedent pathology undoubtedly influenced the negative or equivocal response to ristocetin therapy.[6]"

Spontin In Treating Staphylococcal Infections—After successfully treating 28 patients, the authors wrote, "Ristocetin or Spontin has proved to be bactericidal and bacteriostatic, particularly for the *Staphylococcus aureus*, which is often resistant to many other antibiotics.[5]"

Spontin In Treating Seven Difficult Cases – "Ristocetin has produced excellent results in eradicating, mitigating or preventing infection in seven selected difficult cases. Six of the seven cases involved *Staphylococcus aureus* which did not respond to chemotherapy with other antibiotics.[7]"

Spontin Blood Levels In Children – "Ristocetin was administered as a single intravenous injection of 12.5 milligrams per kilogram. This resulted in serum levels ranging from 1.3 to 10.6 mcg. after two hours with a gradual fall to a level of 0.7 mcg. per cubic centimeter or less after 12 hours.[8]"

Spontin In Treating Staphylococcal Pneumonia —"Ristocetin was used in the treatment of 24 patients with staphylococcal pneumonia, 17 of whom had failed to respond to previously administered antibiotics. Complete clearing of pneumonitis was obtained in 16 patients and significant improvement occurred in two others. Two patients died of pneumonia; four others succumbed to other lethal diseases.[9]"

Spontin In Treating Children and Adults – "Ristocetin completely controlled severe staphylococcal infections in 11 adults and six children who received adequate therapy.[10]"

1. Totals represent published reports and personal communications to Abbott Laboratories.
2. Sixth Annual Symposium on Antibiotics, Washington, D. C., Oct. 15, 16, 17, 1958.
3. Romansky, M. J., and Holmes, R., Successful Short-Term Therapy of Enterococcal and Staphylococcal Endocarditis with Ristocetin–Seven Patients. Preliminary Report, Antibiotics Annual, 1957-58, p. 187.
4. J. A. M. A., 167:1584, July 26, 1958.
5. Bush, L. F., et al., The Use of Ristocetin (Spontin) in Staphylococcal Infections, In Press, Antibiotics Annual, 1958-59.
6. Billow, F. J., et al., Clinical Observations on Ristocetin–A Preliminary Report on its Efficacy and Toxicity in 20 Unselected Severe Respiratory Infections, In Press, Antibiotics Annual, 1958-59.
7. Miller, J. M., et al., Ristocetin in the Treatment of Seven Selected Difficult Cases, In Press, Antibiotics Annual, 1958-59.
8. Asay, L. D., et al., Ristocetin Serum Levels in Children, In Press, Antibiotics Annual, 1958-59.
9. Schumacher, L. R., et al., Experiences with Ristocetin in Staphylococcal Pneumonia: Observations in 23 Cases, In Press, Antibiotics Annual, 1958-59.
10. Terry, R. B., Ristocetin in Children and Adults, In Press, Antibiotics Annual, 1958-59.

In Memoriam

ALEXANDER WILLIAM BLAIN, M.D., seventy-three, Detroit surgeon, died December 13, 1958.

Doctor Blain was born a few blocks from the Alexander Blain Hospital, Detroit, which he founded and named in honor of his father. A Wayne Medical College graduate in 1906, Doctor Blain became assistant to H. O. Walter, M.D., Professor of Surgery at the Medical College, after graduation. During his early days of practice, he served as house officer in Harper Hospital.

Doctor Blain was past president of Wayne County Medical Society; past president and founder of the Detroit Academy of Surgery and a founder of the American College of Surgeons.

Active in conservation of wild life and historical activities, he was appointed a member of the Public Welfare Commission by the late Detroit mayor, John W. Smith, and served two terms as a member of the Michigan Conservation Commission and the Zoological Commission. One of Doctor Blain's last efforts, which he had well under way when he died, was the establishment of Detroit's National History Museum on the third floor of the Old City Hall.

Doctor Blain helped establish the Audubon Society and was a member of the Zion Lodge No. 1, F & AM. He was a member of the Detroit Commandery, Knights Templar, the Moslem Temple Shrine, the Detroit Boat Club and the Noon Tide Club.

Survivors include two sons associated with him at the hospital, Alexander Blain III, M.D., and Donald G. Blain, M.D.

JAMES W. BARNEBEE, M.D., eighty, Kalamazoo physician, died December 19, 1958. He was born at Leonidas, Michigan, and was educated at the University of Michigan before receiving his medical degree from Rush Medical College in 1901. Doctor Barnebee began private practice at Fulton, Michigan, in 1901, and later moved to Mendon, where he served as health officer from 1904 to 1911. From 1911 until his demise, he had practiced in Kalamazoo, where he was a staff member of Bronson and Borgess Hospitals.

Survivors include a son, James Leslie Barnebee, M.D., of Kalamazoo.

ALEXANDER CRUIKSHANK, M.D., eighty-seven, Detroit physician, died December 15, 1958. A native of Quebec, he graduated from the McGill University Medical School in 1895. Before his retirement he had practiced forty-one years in Detroit as a general practitioner.

(Continued on Page 258)

(Continued from Page 256)

RUSSELL CUSHING, M.D., fifty-seven, Detroit physician, died December 1, 1958. A native Detroiter and a graduate of Wayne State University Medical School, Doctor Cushing had practiced in Detroit since 1929. He was a member of the Holy Cross Hospital Staff and Our Lady of the Sea Roman Catholic Church.

HENRY A. HERZER, M.D., eighty-nine, Albion physician, died November 28, 1958. Doctor Herzer was an Albion physician from 1901 to 1952. A native of Chelsea, he was graduated from the University of Michigan Medical School and was a member of the Sheldon Memorial Hospital staff. He was a fifty-year member of the Murat Lodge No. 14 and Albion Chapter No. 32, local Masonic Chapters.

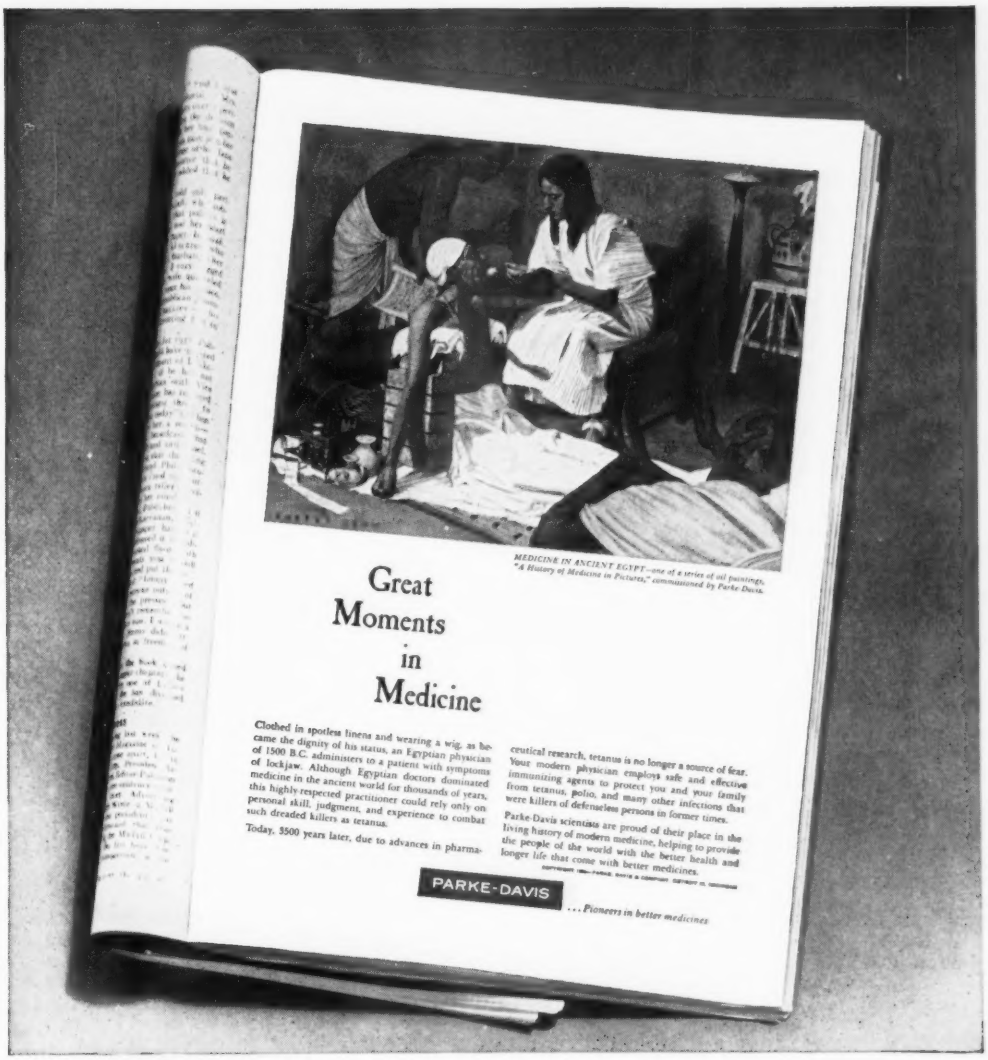
HORACE HALL LOVELAND, M.D., ninety-two, Upper Peninsula physician, died December 15, 1958. Doctor Loveland was born in Newark, N. Y. Following his graduation from the University of Michigan Medical School in 1894, he practiced in Michigamme and Republic thirty years, and in Tecumseh twenty-seven years until he retired five years ago. He was a member of the First Methodist Church of Escanaba, was a life member of Tecumseh Blue Lodge, the Royal Arch and the Eastern Star.

ERNEST C. RISEBOROUGH, M.D., sixty-three, Detroit physician, died December 3, 1958. Doctor Riseborough was a native of Blenheim, Ontario, and a graduate of the University of Toronto. A Shriner and past president of Kiwanis Club No. 1, he also served as a director at Goodwill Industries.

RUSSELL W. ULRICH, M.D., sixty-six, Mount Clemens physician, died November 12, 1958. Doctor Ulrich had practiced in Mount Clemens since his discharge as an Army Medical Officer in World War II. A graduate of University of Michigan, he had served as Chief of Staff of St. Joseph Mercy Hospital.

JOSEPH G. WEISS, M.D., forty-nine, Detroit psychiatrist, died November 6, 1958. Doctor Weiss was graduated from the University of Michigan and Wayne State University Medical Schools and had practiced in Detroit since 1934. During the last three years, he had served a residency at the Pontiac State Hospital.

"Competition in athletics for children can serve as a positive force if every child learns to take losses as well as victories. Competition among children should not follow the intercollegiate pattern of worshipping the star performer and neglecting the unskilled. It should, instead, be kept within such bounds as to promote both the growth of the child's body and the development of a personality."—JEAN HOXIE, Hamtramck, Michigan, "Competitive Athletics for Children," J.A.M.A., Nov. 15, 1958.



Medicine's priceless past is but prologue to its brilliant present and future. To help provide a better public understanding and awareness of Medicine's proud traditions, Parke-Davis will launch a unique and informative new institutional advertising campaign this month. GREAT MOMENTS IN MEDICINE will depict historically accurate scenes of advancements in Medicine through the centuries. This very colorful and interesting Parke-Davis campaign will appear regularly during 1959 in LIFE, SATURDAY EVENING POST, TIME, READER'S DIGEST, and TODAY'S HEALTH. As a preview to the medical profession, the first ad in this series is reprinted above. Within a few weeks millions of people throughout the United States—and the world—will also see it.

PARKE-DAVIS

...Pioneers in better medicines

. . . . . NEWS MEDICAL

DEATH COMES IN THE SPRING

Spring elections seldom excite the electorate.
Politicians observe "trends"; say little.
Pundits cynically bemoan the lack of votes.
Winners and losers, alike mutter "If . . ."

But, to the professions—and to Medicine particularly, the spring elections are of great import.

The offices which govern our schools where we were—and our children are—taught are up for grabs on April 6.

The offices which determine the teaching of the teachers are on the ballot this April 6.

The offices that control our university hospitals, our medical schools are going to be filled come April 6.

The offices of those who will render the ultimate decisions on state policy respecting medical practices and malpractices are to be filled April 6.

We—the People most concerned—must take action before April 6 to be at the polls on that important day.

I say this mildly. Death is sometimes mild, but it's mighty important. We're "dead" if we don't vote on April 6.

GILBERT B. SALTONSTALL
President, Michigan State Medical Society

MICHIGAN AUTHORS

John W. Smillie, M.D., Ann Arbor, is the author of an article entitled "Eye Removal and a Modified Gifford Evisceration Operation," published in THE JOURNAL of the Michigan State Medical Society and digested in *Digest of Ophthalmology and Otolaryngology*, October, 1958.

Kathryn J. McMorrow, M.D., Detroit, is the author of an article entitled "Management of Multiple Sclerosis in General Practice," published in *GP*, December, 1958.

James A. McLean, M.D., Ann Arbor, is the author of an article entitled "Some Considerations in the Management of Bronchial Asthma," published in *GP*, December, 1958.

Edwin L. Prien, M.D., Brookline, Massachusetts, is the author of an article published in THE JOURNAL of the Michigan State Medical Society, August 1958, and condensed in *Current Medical Digest*, December, 1958. The title of the article is "Recent Advances in Treatment of Urinary Stone."

Richard D. Liechty, M.D., Ann Arbor, is the author of an article entitled "Histological Evaluation of Liver Biopsy Techniques," published in AMA *Archives of Surgery*, November, 1958.

Irving Feller, M.D., and **Russell T. Woodburne, Ph.D.**, Ann Arbor, are the authors of an article entitled "The Long Thoracic and Thoracodorsal Nerves in Radical Mastectomy," published in *Surgery, Gynecology and Obstetrics*, December, 1958.

David Barsky, M.D., and **Robert A. Schimek, M.D.**, Detroit are the authors of an article entitled, "Evaluation of Absorbable Gelatin Film (Gelfilm) in Cyclodialysis Clefts," published in AMA *Archives of Ophthalmology*, December, 1958.

R. A. Schimek, M.D., **J. V. Balian, M.D.**, **F. J. Lepley, M.D.**, and **J. A. Ottum, M.D.**, Detroit, are the authors of an article entitled, "Evaluation of Dichlorphenamide as an Ocular Hypotensive Agent," published in the AMA *Archives of Ophthalmology*, December, 1958.

Douglas A. Person, M.D., and **Richard D. Judge, M.D.**, Ann Arbor, are the authors of an article entitled, "Effect of Operation on Serum Transaminase Levels," published in the AMA *Archives of Surgery*, December, 1958.

Medical Teaching Films.—One of the most popular film series in the American Medical Association library for the past fifteen years is being "modernized" by its creators at Wayne State University College of Medicine.

The original 15-reel color film on "Physical Diagnosis" is being revised to include some of the top teachers in American medicine demonstrating their specialties in color and with sound.

Frederick J. Margolis, M.D. of Kalamazoo, director of Audio-Visual Education for the College of Medicine, originator of the first film, is supervising the new project.

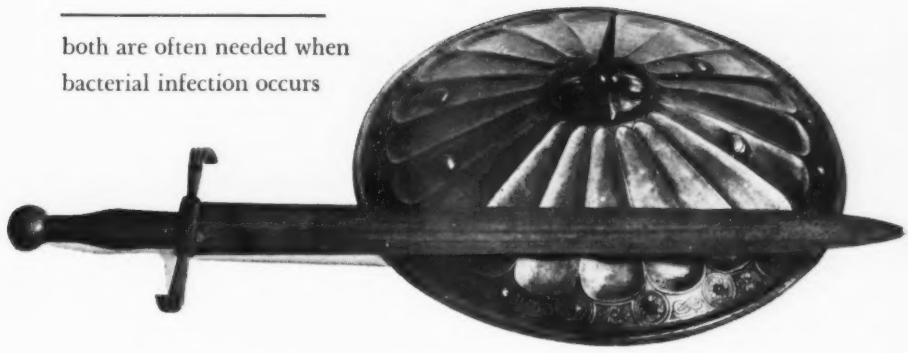
AMA film library director Ralph P. Creer said the films received in 1943 "became increasingly and con-

(Continued on Page 264)

▮ prompt, aggressive
antibiotic action
▮ a reliable defense against
monilial complications

---

both are often needed when
bacterial infection occurs



for a direct strike at infection

Mysteclin-V contains tetracycline phosphate complex

It provides a direct strike at all tetracycline-susceptible organisms (most pathogenic bacteria, certain rickettsias, certain large viruses, and Endamoeba histolytica).

It provides the new chemical form of the world's most widely prescribed broad spectrum antibiotic.

It provides unsurpassed initial blood levels – higher and faster than older forms of tetracycline – for the most rapid transport of the antibiotic to the site of infection.

for protection against monilial complications

Mysteclin-V contains Mycostatin

It provides the antifungal antibiotic, first tested and clinically confirmed by Squibb, with specific action against Candida (Monilia) albicans.

It acts to prevent the monilial overgrowth which frequently occurs whenever tetracycline or any other broad spectrum antibiotic is used.

It protects your patient against antibiotic-induced intestinal moniliasis and its complications, including vaginal and anogenital moniliasis, even potentially fatal systemic moniliasis.

MYSTECLIN-V

Squibb Tetracycline Phosphate Complex (Sumycin) and Nystatin (Mycostatin)

Capsules *(250 mg./250,000 u.), bottles of 16 and 100.* Half-strength Capsules *(125 mg./125,000 u.), bottles of 16 and 100.*
Suspension *(125 mg./125,000 u. per 5 cc.) 60 cc. bottles.* Pediatric Drops *(100 mg./100,000 u. per cc.). 10 cc. dropper bottles.*

SQUIBB *Squibb Quality – the Priceless Ingredient*

'MYSTECLIN'®, 'SUMYCIN'® AND 'MYCOSTATIN'® ARE SQUIBB TRADEMARKS

(Continued from Page 260)

sistently more popular." Approximately 350 requests a year are received, some from medical schools as far as Tokyo and Saudi Arabia.

Twenty medical schools have purchased the film for their own use.

Good clinical teaching requires a combination of circumstances a variety of patients with ailments in sufficient variety to cover the subject. With this available, teachers have but one of the basic needs for a good presentation. It is difficult to organize such a presentation, as chance must govern the time when people with different disorders come to the teacher. These films bring the sick, the skilled teacher and the student together so that each may benefit.

Authorities and areas to be presented in the first of the series are: Franklin H. Top, M.D., State University of Iowa and Louis Weinstein, M.D., of Boston—Contagious Disease; C. G. Van Riper, M.D., Western Michigan University and Paul H. Holinger, M.D., University of Illinois—Disorders of Speech; William T. Green, M.D., Harvard University—Orthopedic Gaits and A. M. Ornstein, M.D., University of Pennsylvania—Neurological Gaits; George Shambaugh, M.D., Northwestern University—Disorders of Hearing.

Clinical examples of disease illustrated in the original films were photographed at Detroit Receiving and Wayne County General hospitals from 1939 to 1943 by Gordon Myers, M.D., Muir Clapper, M.D., and F. J. Margolis, M.D. Dr. Myers, professor of medicine and chief of the Wayne State University Medical Section at Harper Hospital and Dr. Clapper, professor and acting chairman of the Department of Medicine, are consultants on the new film.

Financial sponsor for the first four reels are Ciba Pharmaceutical Products, Inc. Photographer is Rex Flemming of Santa Barbara, California. Filming locations have been hospitals in Boston, Philadelphia, Chicago, Wayne County General and Receiving in Detroit.

Premiere of the film, by invitation, will be in June at the AMA session in Atlantic City, N. J.

About five years will be required to cover the approximately twenty areas planned for the film, Dr. Margolis said. Estimated life of the films should be fifteen to twenty years due to the non-changing character of the subject matter.

When completed, the first four reels of the series will be admitted to the AMA library.

* * *

Carl V. Weller Lecture.—E. T. Bell, M.D., professor emeritus of pathology at the University of Minnesota, delivered the third annual Carl V. Weller Lecture at The University of Michigan Medical Center, December 13, 1958.

He addressed a meeting of the Michigan Pathological Society. The Weller Lectures were established by the Society in 1956 to honor the late chairman of the Department of Pathology at the University of Michigan Medical School.

Previous addresses in the series have been given by

(Continued on Page 266)

Until the discovery of DECADRON* by MERCK SHARP & DOHME, when your diabetic patients were also in need of corticosteroid treatment, you were often faced with a difficult therapeutic dilemma. Diabetes mellitus was a recognized contraindication to the use of corticosteroids, since they not only aggravated the existing diabetic symptoms, but often precipitated latent diabetes.

NOW EVEN many diabetic patients may have THE FULL BENEFITS OF CORTICOSTEROID THERAPY

DECADRON—the new and most potent of all anti-inflammatory corticosteroids—is remarkable for its **virtual absence of diabetogenic effect** in therapeutic doses.

Decadron*

DEXAMETHASONE

to treat more patients more effectively

In clinical trials with some 1,500 patients glycosuria was noted in only two, transitory glycosuria in another two, and flattening of the glucose tolerance curve in one. There were no instances of aggravation of existing diabetes, no increase in insulin requirements. Patients whose diabetes was severely aggravated on prednisolone showed good tolerance when transferred to DECADRON.

MORE patients can be treated with DECADRON than with other corticosteroids, because in addition to being practically free of diabetogenic activity, therapy with DECADRON is also practically free of sodium retention, potassium depletion, hypertension, edema and psychic disturbances. Cushingoid effects are fewer and milder. DECADRON has not caused any new or "peculiar" reactions, and has produced neither euphoria nor depression, but helps restore a "natural" sense of well-being.

MERCK SHARP & DOHME
DIVISION OF MERCK & CO., INC., PHILADELPHIA 1, PA.

(Continued from Page 264)

Howard T. Karsner, M.D., advisor to the Surgeon General, U. S. Navy, and by John C. Bugher, M.D., of the Rockefeller Foundation.

The meeting was held in Rackham Amphitheater on the University of Michigan campus.

* * *

National Medical Foundation for Eye Care.—Ralph O. Rychener, M.D., of Memphis, was re-elected president of the National Medical Foundation for Eye Care by the Foundation's Board of Trustees, at their recent annual meeting in Chicago. Dr. Rychener also serves currently as AMA delegate of the Section on Ophthalmology.

The trustees also elected Harold F. Falls, M.D., of Ann Arbor, vice president of the Foundation, succeeding the late Edwin Forbes Tait, M.D., of Norristown, who died on September 23, 1958. Charles E. Jaeckle, M.D., of East Orange, New Jersey, was re-elected secretary, and Harold G. Scheie, M.D., of Philadelphia, was elected treasurer.

Barnet R. Sakler, M.D., of Cincinnati, was re-elected chairman of the Executive Committee, which comprises Drs. Falls, Jaeckle, Sakler and J. Spencer Dryden of Washington, D. C.

Additional trustees elected to serve during the coming year included: Alson E. Braley, M.D., Iowa City, Iowa, Kenneth C. Brandenburg, M.D., Long Beach, California, Frank D. Carroll, M.D., New York, New York, Lawrence R. Dame, M.D., Greenfield, Massachusetts, Purman Dorman, M.D., Seattle, Washington, Howard F. Hill, M.D., Waterville, Maine, Michael J. Hogan, M.D., San Francisco, California, John L. Matthews, M.D., San Antonio, Texas, Samuel D. McPherson, Jr., M.D., Durham, North Carolina, A.D. Ruedemann, M.D., Detroit, Michigan, Derrick Vail, M.D., Chicago, Illinois.

Organized by ophthalmologists in 1956, the Foundation serves the public by research and publication of special reports and other literature for distribution through the medical profession to the public, in order to help the American people to understand the basic professional and scientific standards of good eye care.

* * *

Windsor S. Davies, M.D., clinical professor of ophthalmology, Wayne State University College of Medicine and Chief of the Pathology Department, Kresge Eye Institute, upon invitation of the Pan-American Ophthalmological Society has given lectures in six South American countries. His lecture topics were "Diseases of the Macula and Anterior Chamber Epithelium."

Dr. Davies left Detroit, Saturday, December 27, for a month tour. He spoke to ophthalmological groups in Rio de Janeiro and Sao Paulo, Brazil; Montevideo, Uruguay; Buenos Aires, Argentina; Santiago, Chile; Lima, Peru and Bogota, Colombia.

* * *

The Council on Rural Health of the American Medical Association has called its Fourteenth National Conference on Rural Health to be held at the Broadview Hotel, Wichita, Kansas, on March 5, 6, 7, 1958. The

(Continued on Page 270)

for

OTITIS EXTERNA
FURUNCULOSIS
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Otamylon® and Otamylon® with Hydrocortisone

EAR DROPS

BACTERICIDAL
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Manner of Use:

After gently cleansing and drying the ear canal, Otamylon (2 or 3 drops or moistened wick) is applied three or four times daily.

Supplied:

Otamylon—bottles (15 cc.) with dropper. Otamylon c̄ Hydrocortisone—15 cc. combination package to be mixed prior to dispensing.

Otamylon is a clear, odorless, sterile, viscid liquid containing:

Sulfamylon® HCl 5%
Benzocaine 5%
Anhydrous glycol q.s. 100

Otamylon with Hydrocortisone: Same formula with 0.02% hydrocortisone.

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New York 18, N.Y.

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WHENEVER SULFAS ARE INDICATED

KYNEX*

Sulfamethoxypyridazine Lederle

provides therapeutic sulfa levels for 24 hours... Highly soluble... rapidly absorbed... produces fast, sustained plasma-tissue concentrations. Simple, easy-to-remember, single 0.5 Gm. daily dose. No crystalluria. [1]

with low incidence of sensitivity reactions... Extremely low in toxic potential. [2, 3] No cutaneous or other objective reactions seen in a wide scale study of clinical toxicity. [2] Even minor subjective reactions are not expected to occur [2] or are reported absent [3] when recommended schedule is used.

TABLETS, 0.5 Gm., bottles of 24 and 100. New ACETYL PEDIATRIC SUSPENSION, cherry flavored, 250 mg. sulfamethoxypyridazine **activity** per teaspoonful (5 cc.), bottles of 4 and 16 fl. oz.

1. Editorial: New England J. Med. 258:48, 1958.
2. Vinnicombe, J.: Antibiotic Med. & Clin. Ther. 5:474, 1958.
3. Sheth, U. K., et al.: Ibid., p. 604, 1958.

LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, N. Y.

*Reg. U.S. Pat. Off.

LETTERS
TO THE MEDICAL DIRECTOR

Dear Doctor:

Rauvera* was used on five patients with essensential hypertension varying from moderate to severe. The highest blood pressure was 220/130 and the lowest 180/105.

All patients have shown a consistent response to the drug and the continuation therapy has effected a good control so far . . . approximately two to three months. In four patients systolic blood pressure was reduced from 20 to 50 mm. Hg and the diastolic from 10 to 15 mm. One patient, who had a pressure of 220/130 has had a phenomenal response, and I brought the systolic down to 165 and the diastolic to 95.

M. D., Wisconsin

Dear Doctor:

Rauvera has produced satisfactory reductions of blood pressure in every hypertensive case in which I have used it.

M. D., Colorado

Dear Doctor:

Rauvera tabs are my choice for hypertension over 170 . . . they give me the best results.

M. D., Texas

Comment: *It is interesting to note that no adverse side effects were reported in connection with Rauvera's effective antihypertensive action.*

*Rauvera contains 1 mg. alseroxylon (purified Rauwolfia serpentina alkaloid), 3 mg. alkavervir (Veratrum viride fraction) in each scored tablet.

(Continued from Page 266)

conference theme will be "Horizons in Rural Health," and special stress is being centered on such important subjects as mental health, problems of the aging, nutrition, dental health, the costs of medical care and the various aspects of health insurance. Discussion periods are planned with ample time for audience participation.

* * *

JAY C. KETCHUM

A national post has been announced for Jay C. Ketchum, Executive Vice President and General Manager of Michigan Medical Service since 1942. He resigned that post, in December, to be Executive Vice President of Health Service, Inc., and Medical Indemnity of America, Inc., the national organizations which co-ordinate Blue Cross-Blue Shield operations in the United States, Canada and Puerto Rico. He will take over the new post in Chicago, March 1.

Congratulations, Jay Ketchum, and commendation on an excellent job done for Michigan's Blue Shield during the past sixteen years!

* * *

The Michigan Rural Health Conference will be held at the Kellogg Center, East Lansing, April 8-9, 1959. The general topic is "Safe Roads to Health." Subjects to be discussed will be, "Milk Inspection Techniques and Procedure," "The Effects of Antibiotics in Use with Animals," "Diseases Inherent in Animal Husbandry in Michigan," "What Can We Do to Reduce Traffic and Accident Problems?," "Problems in the Widespread Use of Antibiotics in the Human." At luncheon, Richard Bates, M.D., Lansing, will present "How to have a Heart Attack." There will be desk-side conferences to permit registrants to obtain answers to their specific health questions. Arthur S. Flemming, Secretary of Health, Education and Welfare, will be the speaker at the banquet in the evening.

On April 9, profession day, the program will include papers on "Medical Aspects of Highway Safety," "Management of the Injured," "Present Problems of Juvenile Delinquency," "Geriatrics." Waldo Bird, M.D., will speak at the luncheon on "What Is Mental Health?"

* * *

More Blue Cross Troubles.—On the last day of December, the newspapers and radios throughout the state announced the action on Tuesday, December 30, of the Wayne County Board of Auditors that it will name a four-member committee to investigate Blue Cross rates and compare them with the rates of other companies. This investigation is being made at the request of Frank

(Continued on Page 272)

A workhorse "mycin" for common infections

respiratory infections

prompt, high blood levels

consistently reliable and reproducible blood levels

minimal adverse reactions

With well-tolerated CYCLAMYCIN, you will find it possible to control many common infections rapidly and to do so with remarkable freedom from untoward reactions. CYCLAMYCIN is indicated in numerous bacterial invasions of the respiratory system—lobar pneumonia, bronchopneumonia, tracheitis, bronchitis, and other acute infections. It has been proved effective against a wide range of organisms, such as pneumococci, H. influenzae, streptococci, and many strains of staphylococci, including some resistant to other "mycins." Supplied as Capsules, 125 and 250 mg., vials of 36; Oral Suspension, 125 mg. per 5-cc. teaspoonful, bottles of 2 fl. oz.

new

CYCLAMYCIN®

Triacetyloleandomycin, Wyeth

PHYSICIANS' COUNCIL

Conforms to Code for Advertising

Wyeth

Philadelphia 1, Pa.

(Continued from Page 270)

D. Williams, business agent for Local 77, State, County and Municipal Employees Association, protesting the recent 18.5 per cent increase. Jacob P. Sumeracki, board chairman, named two members of the committee—Louis G. Basso, county budget director, and Albert Champney, director of the County Bureau of Taxation.

In Grand Rapids, the city's four major hospitals have notified Blue Cross that they intend to withdraw from its hospitalization program unless the newly adopted payment program is changed by April 1. Representatives of Butterworth, Blodgett Memorial, St. Mary's and Ferguson-Droste-Ferguson Hospitals protested the newly adopted method of determining ceiling payment by averaging groups in an area instead of each hospital as previously.

This new formula was adopted, so they claim, in spite of the thirty hospitals in the Grand Rapids area voting against the plan last summer.

* * *

Kenneth P. Mathews, M.D., Associate Professor of Internal Medicine, University of Michigan, has been granted leave of absence from January 15 to April 15, 1959 by the Board of Regents. He plans to study research methods in the Immuno-chemistry Laboratory at Walter Reed Army Institute of Research in Washington, D.C., under the direction of Almer L. Becker, M.D.

* * *

George Zavitzianos, M.D., associate professor of Psychiatry in the Medical School, at the University of Michigan, was granted leave without salary from January 29, 1959 to January 28, 1960. He plans to investigate the ego psychology with special reference to borderline psychotic and prepsychotic conditions with the study being carried on at the New York Psychoanalytic Institute and the London Psychoanalytic Institute.

* * *

Gordon H. Scott, D.Sc., Dean of Wayne State University Medical School and an associate member of the Michigan State Medical Society, was honored by the University of Minnesota by receiving their Outstanding Achievement Award at Commencement exercises in June. The award was presented by Charles W. Mayo, M.D., a regent of the University of Minnesota. Dr. Scott was cited for his achievement as "builder and user of the nation's first electron emission microscope, avid researcher in localizing mineral constituents within the cell, stimulator of young men to develop their full professional capabilities."

* * *

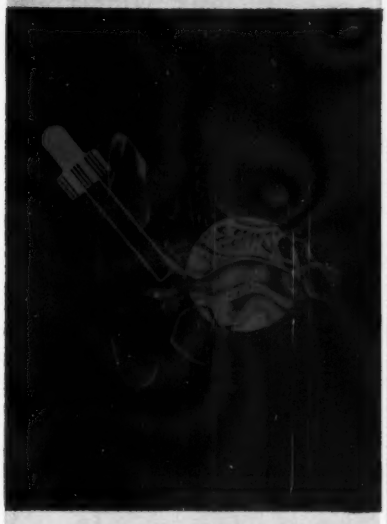
Newsweek for the Blind.—The American Printing House for the Blind of Louisville, Kentucky, a 100-year-old organization and the world's largest publisher for the blind, has announced a non-profit arrangement which will make *Newsweek* the first complete news source for the blind. Beginning with the issue of January 5, 1959, sightless subscribers will receive recordings which contain word for word readings of everything in *Newsweek* except its ads and letters to the editor. Advance proofs of the magazine will be flown to the American Printing

(Continued on Page 274)

PRODUCTS OF DISTINCTION FROM THE PURDUE FREDERICK COMPANY

Cerumenex™ DROPS

For easy, safe, painless removal of ear wax—without instrumentation



Proved clinically effective in 4,464 (95.0 per cent) of 4,695 patients (ages 3 months to 83 years) with excess or impacted cerumen†

For patient convenience and economy, prescribe 'Cerumenex' Drops in the regular 15 cc. bottle, packaged with cellophane wrapped blunt-end dropper.

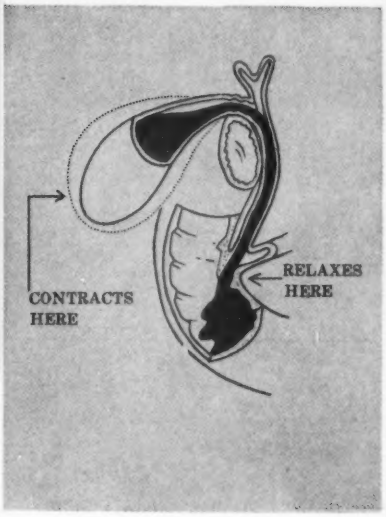
†Complete bibliography available on request

™ CERUMENEX CONTAINS CERAPOR® 10.0% IN PROPYLENE GLYCOL WITH CHLOROBUTANOL 0.8% ®BRAND OF TRIETHANOLAMINE POLYPEPTIDE OLEATE-CONDENSATE U.S. AND FOREIGN PATENTS PENDING

PROBILAGOL™ LIQUID

cholecystokinetic-cholagogue action

Specifically designed for therapeutic and prophylactic management of dyspepsia and food intolerance



A unique cholecystokinetic-cholagogue, 'ProBilagol' provides prompt gallbladder evacuation, prolonged relief, safety, extreme palatability

Supply: Bottles of 12 and 6 fluid ounces.

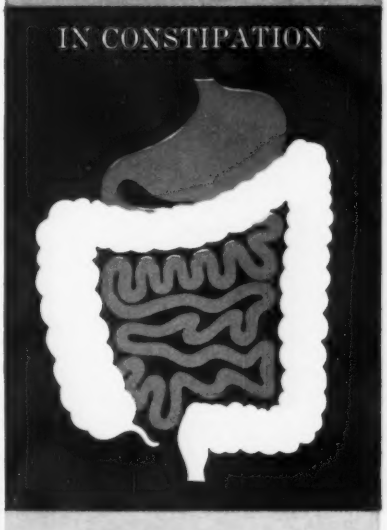
™ PROBILAGOL® GLUCITOL WITH HOMATROPINE METHYLBROMIDE, PURDUE FREDERICK

Senokot®

natural bowel corrective

TABLETS / GRANULES

IN CONSTIPATION



Assures bowel correction and rehabilitation because it "...acts in a way almost indistinguishable from the normal physiologic mechanism..."[1]

without mucosal irritation due to chemical contact

without incompatibilities to antacids and other medications

Supply: Tablets, small and easy to swallow, in bottles of 100. Granules, cocoa-flavored, in 8 and 4 ounce canisters.

1. Herland, A. L., Lowenstein, A.: Quart. Rev. Surg. Obst. & Gynec. 14:196 (Dec.) 1957

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(Continued from Page 272)

House, where they will be tape-recorded and converted to four 12-inch LP records for distribution, in two days' time.

* * *

The Department of Health, Education and Welfare is concerned over the continued supply of well-trained Doctors of Medicine for the anticipated increased need in the not too distant future. Surgeon General Leroy E. Burney, of the U. S. Public Health Service announced the consideration of the subject, and the names of a committee appointed to make a survey, with suggestions of course of procedure. The Committee: Frank Bane, former executive head of Council of State Governments, is chairman. There are twenty-one places on committee, with two still to be filled.

Representing medical education on the group are Deans Vernon W. Lippard (Yale), John McK. Mitchell (Penn), Morris Thompson (Kirksville Osteopathic) and Clayton G. Loosli (USC); Ward Darley, M.D., Association of American Medical Colleges; Edward L. Turner, M.D., AMA Council on Medical Education and Hospitals, and I. S. Ravdin, M.D., (Penn).

Other members are Edwin L. Crosby, M.D., American Hospital Association.; Miss Marion W. Sheahan, National League for Nursing; Harold Hillenbrand, D.D.S., American Dental Association; Harold L. Enarson, Western Interstate Commission for Higher Education; Emory W. Morris, Ph.D., W. K. Kellogg Foundation; Douglas E. H. Williams, Dunbar Community Association; Julian P. Price, M.D., AMA trustee, Florence, S. C.; Very Rev. Robert J. Slavin, Providence College; Fred C. Cole, Tulane University; Robert C. Anderson, Southern Regional Education Board, and Charles E. Smith, M.D., dean, University of California School of Public Health.

They will be asked to find answers to the question, "How can the nation be supplied with adequate numbers of well-qualified physicians over the next decade?" Surgeon-General Burney says group might make its approach as follows: (1) Appraise all existing data and plans on medical manpower; (2) set up areas of agreement; (3) establish manpower goals over next ten or twenty years; (4) recommend actions to be taken by government, industry, institutions and others toward reaching goals; (5) delineate role that should be taken by Public Health Service.

* * *

Wayne State University's College of Medicine has received a gift of $30,000 from the National Foundation of Rochester (Michigan) to establish the William H. McGregor professorship in medicine.

The purpose of the gift is to make it possible for the College of Medicine to attract a distinguished scholar and outstanding teacher to its faculty.

University officials expressed hope that similar endowments might be obtained for other academic areas to attract top grade teaching talent.

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William H. McGregor was the founder of the National Twist Drill and Tool Company, now of Rochester, in 1903. Mr. McGregor served several terms as Wayne County Clerk and was president of the Detroit Board of Education in 1898. He was instrumental in the planning and construction of old Central High School, now Wayne State's "Old Main" building. His work on the board's personnel committee during 1895 to 1896 resulted in personnel policies that are the basis for many of the policies and procedures used today.

The National Foundation of Rochester was formed by a nephew, Howard McGregor, Sr., former president of National Twist Drill and Tool Company, and a grand-nephew, Howard McGregor, Jr., now president of the company.

* * *

University Hospital Not Under Money Shortage.—Doctors throughout Michigan have been assured that their patients could continue to enter the University of Michigan Hospital despite the financial crisis affecting the University. A. C. Kerlikowske, M.D., hospital director, said the clinical activities of University Hospital are self-supporting. The thousand-bed institution meets its payrolls and operating expenses entirely from patient fees.

This method of financing, decided upon many years ago, is specifically aimed at protecting patients from the vagaries of state payments. This method of financing is somewhat unique among major university medical centers. It ha. given some knotty administrative problems in years past. Considering the present crisis facing the University, a similar setback affecting the hospital could have created havoc for patients and personnel.

* * *

John W. Rebuck, M.D., Ph.D., Detroit, is the new president-elect of the Michigan Pathological Society. Dr. Rebuck was elected at the annual state meeting of the society in Ann Arbor. Albert De Groat, M.D., director of the Pathology Department at Herman Kiefer Hospital, is president of the society for 1959. Viola Brekke, M.D., pathologist for Highland Park General Hospital, remains in her capacity of secretary-treasurer.

Dr. Rebuck, who directs the Hematology Division of the Department of Pathology at Henry Ford Hospital, is also executive secretary of the American Hematology Society and president of the Reticulo-Endothelial Association. A graduate of the University of Minnesota, he has been very active in research in the field of Hematology and electron microscopy. His "skin-window" techniques has enabled pathologists to study the reaction of the body to numerous stimuli. He has conducted several workshops on hematological methods for the American Society of Clinical Pathologists.

* * *

Essay Contest.—The attention of physician-medical writers is called to the Mississippi Valley Medical Society Annual Essay Contest. Any subject of general medical or surgical interest including medical economics and education may be submitted providing the paper is

(Continued on Page 279)

(Continued from Page 276)

unpublished and is of interest and applicable value to general parctitioners of medicine. Contributions are accepted only from physicians who are members of the AMA and who are residents and citizens of the United States. Manuscripts must not exceed 5000 words and be submitted in 5 complete copies, in manuscript style. The winning essay receives a cash prize of $100.00, a gold medal, and a certificate, also an invitation to address the annual meeting of the Mississippi Valley Medical Society. The Society may also award certificates of merit to physicians whose essays rate second and third best. Essays must be in the office of the MVMS Secretary not later than May 1, 1959. Further details may be secured from Harold Swanberg, M.D., Secretary MVMS, 209-224 W.C.U. Building, Quincy, Illinois.

* * *

The Annual Clinical Conference of the Chicago Medical Society will be held at the Palmer House, March 2, 3, 4 and 5, 1959.

A faculty of the outstanding speakers will present thirty-three half-hour lectures on subjects of interest to the general practitioner and the specialist. Panels on timely topics, a clinical-pathologic conference, and medical color telecasts will be presented. Teaching demonstration and instructional courses will be presented to small groups to encourage a close relation between the instructor and the physician. Scientific and technical exhibits have been carefully selected.

The instruction courses will be an innovation of the Conference. The four courses cover "Problems in Surgery" to be held from 9 to 10 A. M. each day; "Problems in Medicine" which will be held daily from 11 to 12 o'clock noon; "Problems in Obstetrics and Gynecology" to be held daily between 1:30 and 2:30 P. M.; and "Problems in Allergy" which will be held between 4 and 5 P. M. daily. The instruction courses will be limited to twenty physicians per class and registration must be made in advance. The fee for each course is $5.00.

* * *

Mass Casualty Care.—U. S. Army Medical Service supply officers, on December 30, 1958, demonstrated an emergency medical packet for use in a mass casualty situation to representatives of the Office of the Assistant Secretary of Defense (Health and Medical), the Navy's Bureau of Medicine and Surgery, and the Air Force Surgeon General.

Mass casualty situations occur whenever the number of persons injured is out of proportion to the medical resources available. The problems of mass casualty care are thus not confined to nuclear warfare, but can result from fires, floods, hurricanes, and other civil disasters.

The new medical packet—called Phase I Emergency Medical Treatment Unit—is designed to meet conditions immediately following a military disaster. It has been assumed that during this period no direct professional medical help may be expected, and casualties will either treat themselves or be cared for by other nonmedical personnel. Containing 23 items, the emergency

packet will provide medical material for treatment of approximately 100 casualties for about 72 hours.

This packet is, however, designed for much more than first aid. The items included have been carefully selected, and training in their use will be carried out by all three services.

* * *

Henry L. Bockus, M.D., Philadelphia, who delivered the Biddle Lecture at the 1958 Annual Session, is shown accepting the honorary scroll from MSMS President George W. Slagle, M.D., on October 2, 1958.

* * *

Max K. Newman, M.D., addressed the Hamilton, Ontario, General Hospital and the Medical Society recently on the topic "Management of Muscular Dystrophy and Associated Myogenic Diseases."

* * *

The American College of Chest Physicians will present its 12th Annual Postgraduate Course on Diseases of the Chest, March 30-April 3, 1959, at the Sheraton Hotel in Philadelphia. For program, write the College at 112 East Chestnut St., Chicago 11.

* * *

The Staff of Mayo Clinic and the Faculty of Mayo Foundation for Medical Education and Research will present their annual Clinical Reviews April 13-14-15. Discussed will be problems of current interest in general medicine and surgery. Up to twenty-one hours of Category I credit may be obtained by AAGP members who attend. No fees. For program, write Clinical Reviews Committee, Mayo Clinic, Rochester, Minnesota.

* * *

Howard P. Doub, M.D., Detroit, was elected president of the Southeastern Michigan Division of the American Cancer Society at its annual meeting in the David Whitney House (Wayne County Medical Society headquarters), succeeding James E. Lofstrom, M.D., also of Detroit. Elected to the Board were Drs. John L. Barrett, Royal Oak, and R. L. Mainwaring, Dearborn.

* * *

"A Happy Solution to the Problem of Alcoholism" is the title of a factorial and most interesting and informative brochure recently published by the Committee on

(Continued on Page 282)

(Continued from Page 280)

Alcoholism of the Genesee County Medical Society (Flint, Michigan). The subtitles of this booklet are "The Practical Approach"; "Examine Your Own Behavior"; some "Do Nots" and "What to Do."

The Genesee County Medical Society sponsors regular group therapy meetings, held at the Flint hospitals to which the alcoholic, his relatives and friends always are welcome to attend.

* * *

"Patterns of Disease" for October, 1958, was dedicated to "How Healthy is the American Doctor?".

This special report on the doctor's health had subtitles: (1) "Are Physicians Careless of Their Health?"; (2) "Are Physicians as Healthy as Other Men Under Pressure?"; (3) "To What Hazard Are Physicians Particularly Exposed?"

Every physician should read this particular number of *Patterns of Disease*, published by Parke, Davis & Company, Detroit 32, Michigan.

* * *

Scholarships to the 1959 Midwest Institute of Alcohol Studies, June 21-26 at Kalamazoo, and the Yale Summer School of Alcoholic Studies, June 28-July 23, 1959, have been made available by the Michigan State Board of Alcoholism for professional people interested in gaining a better knowledge of alcoholism, and include room, meals, and tuition at both schools. For additional information write Ralph W. Daniel, State Board of Alcoholism, 230 North Grand Avenue, Lansing, before March 15.

* * *

WM. D. ROBINSON, M.D.

Appointment of William D. Robinson, M.D., a member of the University of Michigan Medical School faculty since 1944, as chairman of the Department of Internal Medicine recently was announced. Dr. Robinson succeeds Cyrus C. Sturgis, M.D., who resigned as Chairman to devote full time to the practice of medicine.

Dr. Robinson is a native of New York State, a graduate of Albion, Michigan, high school, with a Bachelor of Arts from Albion College (1931) and an M.D. from the University of Michigan Medical School (1934).

* * *

The United Cerebral Palsy Association of Michigan announces scholarships available during 1959 in the field of cerebral palsy, available to citizens of the United States at (a) the Columbia University College of Physicians and Surgeons, March 2-20, 1959, and (b) the Cook County Illinois Graduate School of Medicine, June 15-26, 1959. For information or application blanks, write the Association at 206 Hollister Bldg., Lansing 8.

(Continued on Page 286)

Lowers blood pressure — maintains mental alertness

calms the patient under stress

Rautensin provides a smooth, gradual and sustained reduction of blood pressure without sudden rebounds or abrupt declines.[1] Rautensin's tranquilizing properties calm the tense and anxious hypertensive without impairing alertness, without producing excessive lethargy or drowsiness.

The risk of Rauwolfia-induced depression is markedly reduced since the alseroxylon fraction alone is used.[2] Even on long-term administration side actions "...are either completely absent or so mild as to be inconsequential."[3]

Rautensin®

Each tablet contains 2 mg. of the purified alseroxylon complex of Rauwolfia serpentina

1. Wright, W. T., Jr.; Pokorny, C., and Foster, T. L.: Kansas M. Soc. *57*:410, 1956. 2. Gilchrist, A. R.: Brit. M. J. *2*:1011 (Nov. 3), 1956. 3. Terman, L. A.: Illinois M. J. *3*:67, 1957.

SMITH-DORSEY • a division of The Wander Company • Lincoln, Nebraska

(Continued from Page 282)

Seventy-four Per Cent of M.D.'s Scan All Their Mail. —*Advertising Aids* (December 15, 1958) reports a poll made by Medical Advertising Service of 1,508 physicians which shows, that 50 per cent reported they open their own mail, while the remaining 50 per cent let their nurses and secretaries do this job. Of assistants who opened the doctors' mail, 50 per cent pass all the mail to the doctors—which means nearly 74 per cent of the doctors in this survey at least look at all of the mail.

One of the key questions asked: "Of the direct mail you receive, what percentage do you feel is of value to you?".

Here are the answers:

- 138 answered under 5 per cent is of value
- 563 answered 5 to 20 per cent
- 297 answered 20 to 40 per cent
- 251 answered 40 to 60 per cent
- 96 answered 60 to 80 per cent
- 73 answered more than 80 per cent
- 90 failed to answer the question.

Of the 1,508 M.D.'s, only 202 returned critical comment—with ninety noting there is too much mail.

* * *

Wayne State College of Medicine enrollment has increased from 274 to 319. The overall enrollment of all medical colleges is now 20,430.

* * *

The American Trudeau Society (Medical Section of the National Tuberculosis Association) will feature a symposium on smoking and lung cancer and another on pulmonary emphysema at the annual meeting to be held in Chicago, May 25-28, at the Palmer House. For program, write the Association at 1790 Broadway, New York 19.

* * *

Jerome W. Conn, M.D., Ann Arbor, recently presented the annual Shannon Lectures in Medicine, sponsored by the Shannon West Texas Memorial Hospital, San Angelo, Texas. Doctor Conn gave four lectures on the general subject of Endocrinology and Metabolism.

* * *

Frederick A. Coller, M.D., of Ann Arbor, presented the annual Dallas E. Phemister Lecture recently at the University of Chicago on the topic "Science and Surgery."

* * *

Laurence F. Segar, M.D., Detroit, has been reappointed Governor for the State of Michigan of the American Diabetes Association for a three-year term ending in June, 1961.

* * *

The Chippewa-Mackinac County Medical Society recently presented the Sault Sainte Marie Crippled Children's Program with a check for $1,150.00. For some years, the medical society has given funds to the Sault Ste. Marie Board of Education for use in the Malcolm School orthopedic room crippled children's program.

* * *

Postgraduate Conferences in Ophthalmology and in Otolaryngology will be held at the University of Michi-

(Continued on Page 288)

(Continued from Page 286)

gan Medical Center next spring. The Ophthalmology Conference will be held in the Rackham Graduate School Building, April 20-21-22, conducted by F. Bruce Fralick, M.D., and staff. The Otolaryngology Conference will be held at the University Hospital, April 16-17-18 under the direction of James H. Maxwell, M.D., and staff. For program and full details, write John M. Sheldon, M.D., University Hospital, Ann Arbor.

* * *

Ruth E. Wagner, M.D., Royal Oak, was recently honored by the American Medical Women's Association as Michigan's "Medical Woman of the Year."

Congratulations, Doctor Wagner!

* * *

Wm. G. Gamble, Jr., M.D., Bay City, and **Wilfred J. Rowell, M.D.**, Alpena, recently were reappointed by Governor Williams to the Michigan State Sanitorium Commission.

* * *

Edgar E. Martmer, M.D., Detroit, was quoted in the *AMA News* of December 29 in connection with his presentation, as AMA representative, to the Washington Conference on Poliomyelitis Experience During 1958, a meeting called by Public Health Service General Leroy E. Burney.

"With 72 million Americans vaccinated with at least one shot," stated Doctor Martmer, "this has been one of the most successful health campaigns of recent years. But now we need to finish the job."

Those attending the Conference agreed that the point has been reached in most communities at which "Face-to-Face" campaigns will be necessary to reach persons who have not responded to polio vaccination programs.

* * *

Social Security Tax Increased.—Since January 1, 1959, physicians have been required to pay increased Social Security taxes on wages of employes, including domestic help. The new rate is 2.5 per cent as the employer's share and 2.5 per cent as the employes.

The new tax boost applies to any payment on or after January 1—even though wages may have been earned earlier. The tax starts on any domestic worker to whom a physician pays $50.00 or more in a calendar quarter.

The tax base had been increased from $4,200 to $4,800. The new tax is expected to increase federal tax collections by $1.1 billion, about half of which will come from employers. This means a tax increase of $25.50 per employer and $25.50 per employe on gross earnings of $4,800.

* * *

Health Programs Cost $3 Billion Dollars.—The Federal Government's various Health Programs will cost taxpayers a record-breaking 2.9 billion dollars during the fiscal year 1959. The twenty-two separate agencies and departments are today spending 62 per cent more than they did five years ago. The lion's share is earmarked for the department of Health, Education and Welfare whose budget has climbed from 849 million last year to more than $1.1 billion in the fiscal year 1959.

Another lion is the Veterans Administration with 843 million, a substantial slice of this amount being spent on in-patient care in the 173 VA hospitals which at present have a daily patient load of 101,063 and operate at 92 per cent of capacity. Much of the money is used to care for patients with non service-connected disability.

* * *

Laurence S. Fallis, M.D., Detroit, recently was elected as President of the Detroit Institute of Cancer Research; **Harry M. Nelson, M.D.**, Detroit, was elected Vice-President.

* * *

M.D. LOCATIONS

Through November 30, 1958

Placed by Michigan Health Council

William K. Hicks, M.D.	Battle Creek
Assisted by Michigan Health Council	
Allen D. Anneberg, M.D.	Pontiac
Robert J. Solomon, M.D.	Lincoln Park
Robert F. Thimming, M.D.	Lansing
James D. Hays, M.D.	Douglas
James W. Finn, M.D.	Utica
Richard A. Knecht, M.D.	Petoskey

* * *

Medicare Program Gets Expensive.—The Medicare Program cannot possibly remain within its 1959 budget of $72,000,000,000. The projection is that it will spend at least $110,000,000,000, and that Congress will be asked to come up with a deficiency appropriation. The benefit cutback, instituted in October, 1958, came altogether too late. In direct violation of the Program-stated purpose, these cutbacks forced dependents to use available military hospital facilities. "Free choice" was being nicely ignored.

* * *

MEDICAL TELEVISION SHOWS

Produced by Michigan Health Council
1958

November 2	"Diabetes" William L. Lowrie, M.D., Frank S. Perkin, M.D., Miss Mary M. Harrington, all of Detroit; and Mrs. Robert W. Woodruff, of Dearborn.
November 9	"Muscular Dystrophy" Alan Kowalski 1958 Poster Boy and his parents Mr. and Mrs. Edward Kowalski of Warren, Michigan, Max K. Newman, M.D., Gerald Frampton, and Paul J. Militello, all of Detroit.
November 16	"Careers in Nursing" Miss Norma Kirkconnel, Ann Arbor; Miss Amailia Krause, Dearborn; Joseph T. Melling, Lincoln Park; and Miss Martha Drage, Mrs. Margaret Gerard, Carole Hinze, Mary O'Dowd, and Eleanor Lane all of Detroit.
November 23	"Allergy" (Film—"Allergy")
November 30	"Radiology, Blood Pressure, Hearing" (Film—"World of Medicine Program No. 1")

Communications

QUARTERLY REPORT OF THE COUNCIL

December 31, 1958

To: Every Delegate to MSMS.

From: The Council of MSMS, D. Bruce Wiley, M.D., Chairman.

The 1958 House of Delegates instructed that quarterly reports be sent to House members informing them on the progress made in the continuing development of the Seal of Assurance Plan.

1. *Participation in the MSMS Seal of Assurance Plan.*—Since the report of the House of Delegates Auditing Committee on Seal of Assurance Participation, there has been a net gain of 146 Enrollment Authorization bringing the total number of participating physicians to 4,059.

2. *Councilor District Medical Care Insurance Committees.*—Prior to the organization of the separate District Committees, the chairmen were invited to two briefing meetings—October 29 and December 6. Informed on the background, purposes and responsibilities of their committees, the chairmen will hold organization meetings of their respective committees beginning in January.

3. *Michigan Relative Value Study.*—At its September meeting, The Council approved a general outline for the organization of a Michigan Relative Value Study. Subsequently, The Council appointed a Committee on Relative Value Study chaired by Luther R. Leader, M.D., Detroit. At the invitation of MSMS, two of the prime movers in the development of the California Relative Value Study—F. J. Cox, M.D., of San Francisco, and H. Dean Hoskins, M.D., of Oakland, California, addressed a special meeting of MSMS officers, representatives of specialty groups, and members of various committees, including chairmen of Councilor District Medical Care Insurance Committees.

This meeting on December 6, 1958, was primarily informational and provided an opportunity to learn more of the how and why of the California RVS.

4. *Study of Alternative Methods of Payment to Physicians.*—The 1958 House of Delegates (Substitute Resolution No. 8) instructed the Medical Care Insurance Committee and MSMS Legal Counsel to explore alternative methods of paying physicians for services rendered subscribers of prepayment plans.

The Committee and Legal Counsel have agreed upon the method of study and are now developing the legal framework which will serve as a guide to the feasibility of plans presented for committee study. A report will be presented at the next session of the House of Delegates.

5. *M-75 Contracts for Other than Hourly-Rated Employees.*—The current M-75 contract is available only to persons in employment groups whose incomes are determinable through payroll records. In compliance with the MSMS Statement of Principles (Ref.: JMSMS, Nov., 1957, p. 1408, Item 6), additional contracts were required which would pertain (a) to those subscribers who were self-employed and (b) those who left employment groups through change of occupation or job loss. At its July meeting, The Council approved the principle that in the contracts for the above groups, the subscriber shall be required to certify to the physician the income of the principal contributor of family support. Subscribers would be urged to purchase the contract which most nearly reflected that income. The subscriber's identification card, however, would indicate that his income had not been certified by Michigan Medical Service.

The Council approved the necessary changes in contract wording; subsequently the State Insurance Com-

missioner approved the changes. The contracts may now be sold when ready.

6. *Method of Determining Income of Retirees.*—Under the M-75 contract, it is necessary to determine the income of retirees so that these subscribers can be issued contracts which reflect their incomes. From employer records, it is possible to determine the amount of pension or retirement fund income. To this must be added income from OASI (Social Security). Since the employer is not able to furnish records of individual OASI payments, it was necessary to develop a method of determining the monthly income from OASI. As finally approved by The Council, a median OASI payment was computed which is to be added to the subscriber's income from trust or pension funds. This will, then, indicate the income level into which the subscriber falls.

This first quarterly report to Delegates reviews activities since September 1, 1958. As in the past, the complete Proceedings of the House of Delegates will be printed in the January Number of the Journal of MSMS.

EDITOR'S NOTE.—The House of Delegates instructed the Council to transmit this quarterly report to its members. The Editor believes, however, it is of such interest that the whole membership should be informed. These reports will be published each quarter as they are made available.

Legal Opinion

County Medical Society

Dear Secretary:

I have your letter of November 24 on the problem of the possible liability of medical organizations for income taxes where the constitution and by-laws of the society do not definitely establish its non-profit status.

Insofar as your constitution and by-laws are concerned, assuming that you have substantially followed the forms prepared and suggested for county societies, I have no doubt that your Society is a non-profit organization of the type which qualifies for tax exemption.

The tax exempt status of any organization does not depend merely on the nature of the organization as set forth in its constitution and by-laws but is determinable by what it does in actual practice. If, for instance, an organization is on its face organized for purely charitable, educational or scientific purposes it may, nevertheless, engage in profit making activities which would subject it to the payment of income taxes. I have no reason to believe that your Society does engage in any such activities but, obviously, am in no position to determine definitely that such is or is not the case.

In short, to answer your specific question, I believe your constitution and by-laws to be entirely adequate in this area and I can see no reason why they should be amended because of any question as to tax status. If, however, your Society has any question as to its status from the standpoint of its actual activities and operations, I can only repeat that that is a matter for individual treatment by your own counsel.

To the extent that I may be able to offer any general advice, information, or assistance to your County Society's counsel, I shall be most happy to do so.

Sincerely yours,

LESTER P. DODD,
Legal Counsel, MSMS

Detroit, Michigan
November 26, 1958

THE DOCTOR'S LIBRARY

Acknowledgments of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review, as expedient.

LUMBAR DISC LESIONS Pathogenesis and Treatment of Low Back Pain and Sciatica. By J. R. Armstrong, M.D., M.Ch., F.R.C.S., Orthopaedic Surgeon to the Metropolitan Hospital, Orthopaedic Surgeon to Lambeth Hospital, Visiting Orthopaedic Surgeon to Manor House Hospital (Industrial Orthopaedic Society), Honorary Consulting Orthopadeic Surgeon to Royal Waterloo Hosptal for Children and Women, Late Visiting Orthopaedic Surgeon to the Ministry of Pensions Hospital, Stoke Mandeville, Late Orthopaedic Specialist, Royal Air Force Medical Service. Foreword by H. Osmond-Clarke, C.B.E., F.R.C.S., Orthopaedic Surgeon, London Hospital; Senior Visiting Surgeon, Robert Jones and Agnes Hunt Orthopaedic Hospital, Oswestry; Civilian Consultant in Orthopadeic Surgery to the Royal Air Force. Second Edition. Baltimore: The Williams and Wilkins Company, 1958. Price $12.00.

This is as neat and concise a treatise on low back pain as is generally available. The title is misleading for the whole realm of low back pain is discussed, although, as the common offender, lumbar disc lesions are chiefly presented.

Organized in classical manner as to historical review, anatomy, pathology, clinical picture, differential diagnosis, and treatment, the book covers the forest without obscuring the different varieties of trees.

In its detail it is of principal interest to the orthopaedist and neuro-surgeon, but its coverage of the field of differential diagnosis of low back pain renders it valuable to all those whose patients present these problems.

R.H.A.

TREATMENT OF BREAST TUMORS. By Robert S. Pollack, M.D., F.A.C.S., Clinical Instructor in Surgery, Stanford University School of Medicine; Clinical Instructor in Surgery (Oncology), University of California School of Medicine; Assistant Chief of Surgery, Mount Zion Hospital, San Francisco, California; Consulting Surgeon, Oakland Veterans Administation Hospital; Consulting Surgeon, Oakland Naval Hospital, Oakland, California. 47 plates; 16 text figures. Philadelphia: Lea & Febiger, 1958. Price, $6.00.

This monograph by Dr. Pollack is of interest to surgeons, general practitioners, and internists, in that it is a complete treatise bringing them the most up-to-date thoughts and present day thinking on the treatment of breast tumors. It presents a complete classification of the breast tumors, both benign and malignant, then goes into the management of the primary and secondary complicating factors, including long-term problems, such as pregnancies, opposite breasts, lymphadema, and recurrence. Surgical techniques are well described and illustrated with atlas-type drawings whenever surgery is considered. There is also a chapter that brings one up-to-

date with the most modern thinking on radiotherapy, discussion of the oral and parenteral administration of the hormones, and detailed management of the adrenalectomized and hypophysectomized patient.

This book well deserves to be in the library of every doctor doing general physical examinations on women patients.

J.M.H.

IDEALS IN MEDICINE. A Christian Approach to Medical Practice. Edited by Vincent Edmunds, M.D., M.R.C.P., and C. Gordon Scorer, M.B.E., M.D., F.R.C.S The Christian Medical Society, 127 South Wacker Drive, Chicago 6, Illinois. Price $3.00.

This is a small book by a group of contributors who for the most part are physicians. They are connected with religious work and some have been missionaries. From the Christian viewpoint they point out the differences between medical etiquette and ethics, the satisfactions of being a family doctor and his relationship to the patient, the relatives and his colleagues, the duties of a consultant, the problems of sex, contraception, incurable disease, treatment and research. They believe the one rule of practice is to put yourself in the patient's place. This is a book on ethics whereas most former books were of a legal nature.

H.E.A.

CLINICAL RADIOLOGY OF ACUTE ABDOMINAL DISORDERS. Bernard S. Epstein, M.D., Chief, Department of Radiology, The Long Island Jewish Hospital, New Hyde Park, New York; Associate Clinical Professor of Radiology, Albert Einstein College of Medicine, Yeshiva University, New York, New York. 406 Illustrations on 224 Figures. Philadelphia: Lea & Febiger, 1958. Price $15.00.

Despite the author's explanatory preface the title of this book continues to mislead the reader. This reviewer would suggest that the true matter therein be expressed in a title such as, "Clinical Radiology of Abdominal Disorders, Acute and Chronic."

The subject matter is covered very systematically and reasonably fully considering the tremendous number of situations with which he deals. Disorders concerning the newborn and during the first year of life are managed deftly and with a pleasant paucity of words. In fact, throughout, the absence of verbosity is refreshing. The section on intra-abdominal hernias is well presented as is the entire subject of neoplastic disease. A real deficiency exists in the chapter on gastritis when he fails to discuss the subjective and objective signs of hypertrophied rugae associated with anacidity.

The last quarter of the book detracts somewhat from the first three quarters in that Doctor Epstein seems to try to have something to say about an increasing number of minor or rare situations, merely in order to round out his total treatise. The mere mention of these subjects without descriptive radiographs removes such subjects from the realm of material for "clinical radiology."

In general it is a superb book for the student of radiology where material on many situations is condensed and beautifully illustrated. It might well serve as a manual for teaching of residents in radiology. It is not, however, sufficiently detailed to serve as a reference book for practicing radiologists and adds but little to the previous exhaustive works covering the many situations encountered within the abdomen.

S.P.B.

REHABILITATION MEDICINE. A Textbook on Physical Medicine and Rehabilitation. By Howard A. Rusk, M.D., Professor and Chairman of the Department of Physical Medicine and Rehabilitation, New York University-Bellevue Medical Center, New York, N. Y., and thirty-six collaborators. With the editorial assistance of Eugene J. Taylor, A.M., St. Louis: The C. V. Mosby Company, 1958. Price, $12.00.

In the most rapidly developing field of medicine, Rehabilitation Medicine, there is a woeful lack of good and adequate texts for purposes of information as well as instruction. The editor and collaborators in this text now furnish the necessary information relative to the modus operandi and methods of rehabilitation medicine.

The book serves as a basic elementary textbook to give useful information as well as reference to physicians, whether they be in general practice or specialists in the field of Physical Medicine and Rehabilitation. The outline permits the family doctor to initiate the major medical rehabilitation measures obviating the future deterioration and increased disability because of the lack of understanding. Specific diseases are discussed such as paraplegic, hemiplegic, demyelinating diseases, and clinical problems in relation to General Physical Medicine and Rehabilitation.

The entire philosophy involved in the text is that all medical men, regardless of their general or specialist background should have sufficient understanding in the skills which are necessary for Rehabilitation Medicine procedures.

An excellent textbook, by an excellent group.

M.K.N.

THE CARE OF THE GERIATRIC PATIENT. Edited by E. V. Cowdry, Ph.D., Sc.D. (Hon.), Director of Wernse Cancer Research Laboratory, Washington University School of Medicine; formerly President of the Gerontological Society and of the Second International Gerontological Congress; Chairman of the Medical and Scientific Committee, American Society for the Aged, Inc. St. Louis: The C. V. Mosby Company, 1958. Price, $8.00.

The medical problems of 1900 would have placed most of the geriatric survivors of 1958 in their graves. A society that can now save human life bears the responsibility for the quality of the lives thus extended. The several distinguished contributors to the book shape up its main theme, aimed at the high calling of the doctor and his responses to the needs of the elderly.

There is a large gap between our new geriatric knowledge and its utilization. The greatest world tragedy is the old, useless, diseased, unwanted person. The geriatrician must actually like older people, extend sympathy and service, but the elderly patients themselves cannot stop all effort and blindly expect the best.

The older population is placed under certain social and psychological stresses by our fast-paced society. Forced retirement leads to frustration. Whether a patient reaches eighty or 962 years, his family physician must be alerted to genetic disorders, psychosomatic and asymptomatic diseases. A cancer may exist without symptoms. Early evaluation may prevent a cardiovascular disaster. With anticipated care, debility and disease are not inevitable. The greatest psychic aid comes from social and physical activities. Geriatric psychiatry is a new wide-open field.

With the correction of physiological inadequacies and the institution of good nursing care in a well-run hospital, the elderly patient can survive surgery with better prognosis than he can survive without it, considering the essential principles of individualization. The anesthesiologist must make himself acquainted with laboratory findings and realize that his patient is easily sedated, readily anesthetized, prone to overdosage, and that he responds well to muscle relaxants. The greatest danger in geriatric medication lies in too vigorous treatment and in side effects. If you do not believe in the worthwhileness of old age, stay out of geriatrics.

Nutritional and caloric requirements of fats, carbohydrates and proteins are amply presented, with special reference to vitamins and minerals. Elderly eating should be a pleasure, not a chore, with proper consideration of oral health and genetic evaluation. The reader will profit in reviewing the analyses of hospitalization, nursing homes and home care.

Special centers of the Howard Rusk flavor and the grass roots may both be employed in geriatric rehabilitation. The sheltered workshop is just emerging on the horizon with its share of geriatric triumphs. Geriatric training is now entering our medical school curricula. An excellent chapter reviews national, state and local programs, designed to aid the rising number of older people and to intensify assistance where most needed.

Our old friend, Dr. J. H. Sheldon of England, completes the book with his inspiring chapter entitled "Geriatrics Around The World." To know the great man and to be inspired by his writings, have become two of life's deep accomplishments.

The review of this book has not only served as reading pleasure, but has functioned as a basis of future positive geriatric endeavor.

C.H.R.

BOOKS RECEIVED

PHYSICIANS' DESK REFERENCE to Pharmaceutical Specialties and Biologicals In Five Sections. An arbitrary page numbering plan to facilitate the compilation of this reference book. J. Paul Folsom, General Manager; Henrietta Bull, Managing Editor; J. E. Van Hoven, Production Director; Robert C. Batterman, M.D., Editorial Consultant. Oradell, N. J.: Medical Economics, Inc., 1958.

ANNUAL REPORT of the Surgeon General, United States Army. Fiscal Year 1958. Office of the Surgeon General, Department of the Army, Washington, D. C.

HOW TO AVOID FINANCIAL TANGLES. By Kenneth C. Masteller. Great Barrington, Massachusetts; American Institute for Economic Research, 1958. Price, $1.00.

Classified Advertising

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FOR SALE: Allergy practice located in a midwestern city of 190,000; gross income $50,000 annually; physician retiring because of ill health. Write: Box 1, 606 Townsend Street, Lansing 15, Michigan.

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FOR SALE: Complete office x-ray equipment, consisting of one Continental Pioneer single tube fluoroscopic (Patterson Screen) and radiographic x-ray unit, pedestal control with 1/20 second electronic timer; fluoroscopic timer; rotating anode tube starter; fullwave general; full size hand tilt table vertical to 10 per cent Trendelenburg with motor-driven shutters; Standard speed bucky; floor railmounted tubestand; Dynamax 20 rotating anode tube and high tension cables; one hand-operated cassette changer (14″x17″); one fluoroscopic view box; 2 lead film boxes; holders; highspeed screens (14″x17″, 10″x12″, 8″x10″); assorted backboard film holders; cones; miscellaneous items and cabinets. Must be sold as a unit; will not sell as individual items. Price $3,500, cash. Telephone: Bay City, Michigan, TW-5-9700.

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